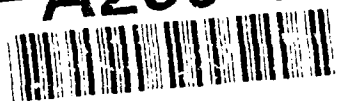


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Desert Storm and Its Meaning

The View from Moscow

Benjamin S. Lambeth

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Desert Storm and Its Meaning

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Benjamin S. Lambeth

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prepared for the
United States Air Force

RAND

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PREFACE

The 1991 Persian Gulf war is proving to be a fertile source of insight not only for the American military establishment, but also for present and potential allies of the United States around the world. This insight is broad-ranging and involves such considerations as joint planning, technology application, coalition management, training and tactics, and changing patterns in the relative importance of the many combat and combat-support functions performed by the services.

This report assesses how Russian defense experts have thus far perceived and drawn policy-useful conclusions from Operation Desert Storm. Although it is commonly observed that losers tend to profit more than winners by way of "lessons learned" from such experiences, that observation does not strictly apply to the former USSR, since the Soviet government supported the coalition throughout the Gulf crisis despite the fact that Iraq had been one of its principal arms recipients. All the same, the Soviet defense establishment was more than passingly interested in the combat performance of both sides, and its successor institutions continue to exert major efforts to comprehend the war's course and outcome. On some issues, notably the changed role of air power in modern warfare, Russian observers may have better grasped the true meaning of what happened in the Gulf than many in the West. The seminal question is, what will they do with it?

This study was supported as a concept development effort at RAND in the National Security Strategies Program of Project AIR FORCE. It should be of interest to USAF officers and other military and defense professionals concerned with allied and Iraqi combat operations in the Gulf; with Russian understanding of what was novel and significant about the war; with the potential impact of the Gulf experience on future Russian military development; and with the evolving role of air power and its proper place in American defense policy.

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SUMMARY

Russian commentators have had a lot to say about the Gulf war and its historic meaning. For one thing, the war was conducted against the USSR's main military client, which had been heavily armed with Soviet weapons and an operational philosophy to match. **Desert Storm thus came as close as one might reasonably expect to being a laboratory test of the American and Soviet ways of war, at least as far as the coalition's offensive counterair operations and Iraq's integrated air defenses were concerned.** For that reason, the war has triggered introspection across a wide range of Soviet military precepts that should yield important clues as to how the former Soviet High Command will eventually reform and modernize its armed forces.

Far more important than anything it may tell us about future Russian defense policy, however, is the value to be gained in our own understanding of Desert Storm from what well-informed spokesmen in Moscow have had to say about it. The General Staff has long been rightly known to be one of the world's great repositories of expert thinking on strategy and war. To a considerable degree, its commentary has overlapped many of the issue areas that have been hotly debated within the American defense community, notably the relative importance of—and interplay among—such core factors affecting combat performance as leadership, doctrine, motivation, training, technology, equipment, and concepts of operations. Insofar as we can discriminate serious reflection from the more parochially motivated aspects of Moscow's rhetoric on Desert Storm, the resultant image should prove both insightful and illuminating to American military and defense professionals.

Any judgments regarding whether the war was a defining experience for Russian military policy, however, will have to await the test of time. **Operations Desert Shield and Desert Storm occurred at a time when the Soviet political system was hopelessly unsuited to profit from any teachings of the war because of more pressing distractions, notably an economy in ruin and the rapidly accelerating disintegration of the Soviet state. These problems were bad enough while the Gulf crisis was still running its course. They rose to a level of all-consuming domination, however, following the failed August coup and the collapse of communism and**

the USSR that ensued. As a result, thinking about reacting in any tangible way to insights gathered from the Gulf experience has been anything but a burning concern on the Russian military agenda.

It will be some time before we see any major moves from Moscow to accommodate its conclusions from the Gulf war that call for substantial outlays for R&D and procurement. More immediate problems facing the High Command include sorting out Russia's security relations with the other republics of the faltering Commonwealth of Independent States; dealing with nuclear command and control issues posed by the collapse of the Soviet state; keeping the defense industry from dying as weapons production has slowed down, procurement funds have run out, and available resources are being channeled mainly toward providing needed amenities for Commonwealth troops; clearing out deadwood from the upper ranks of the officer corps; closing the books on political controls in the armed forces; and generally bringing the military establishment back to a state of good health. Satisfying these demands will have to precede *any* other changes in the Russian armed forces, including changes to accommodate whatever insights may have been vicariously derived from Desert Storm.

Further compounding the difficulty faced by the High Command in assimilating "lessons" from the Gulf war is the fact that the entire context of Russian security planning has changed fundamentally in the past two years. With the ending of the Cold War, the unification of Germany within NATO, the dissolution of the Warsaw Pact (and, with it, the disappearance of Eastern Europe as a buffer zone), and the progressive trend toward normalization in Russian-American relations, all the premises and assumptions that guided Soviet force development and operational planning for four decades have been rendered moot.

The effect of this has been to return the High Command to the starting line with respect to formulating military doctrine and force requirements. Much as the American defense community has lately come to discover for itself in this regard, the Russian military is now adjusting itself from a *threat*-specific to a more *mission*-specific planning environment, in which external challenges have become indeterminate and unavailing of easy standards for deciding on force size and composition.

Notwithstanding these inhibitions, the Gulf war has not escaped close attention by those in Moscow chartered to think about such matters. Indeed, all indications suggest that the

Russians have done remarkably well at perceiving and understanding what happened in Desert Shield and Desert Storm—in some cases perhaps better than many in the West.

Thus far, Russian military analysts have publicly cited the following main conclusions from the Gulf experience:

- The nature of modern war has changed radically from what seemed commonplace only a few years ago.
- Air power may still not be able to win wars by itself, but it has become the decisive force element permitting the attainment of victory with a minimum of friendly losses.
- The Soviet concept of integrated, overlapping, and redundant air defenses has serious vulnerabilities.
- Tanks are an endangered species when the other side enjoys control of the air.
- Quality beats quantity any day, but there has to be enough of it for its influence to be felt.
- Coalition warfare works if properly conducted.
- Military reform will be essential for Russian forces to gain the proficiency and motivation that will be needed to extract the fullest leverage from their military equipment.

As for possible insights being pondered in private, few Russians have had the temerity to suggest openly that Soviet air and air defense forces would have performed as poorly as Saddam Hussein's did against superior Western training, tactics, and technology. Yet it is hard to believe that the more reflective among them are not asking themselves privately to what extent Desert Storm constituted a mirror of what might have happened to Soviet forces had there been a NATO-Warsaw Pact war involving analogous capabilities and combat styles on both sides.

Granted, the differences between the military balance that obtained between Iraq and the coalition on the eve of the Gulf war and the NATO-Warsaw Pact confrontation that prevailed in Central Europe throughout the Cold War are vast in both magnitude and scale. So are the contrasts between the circumstances that characterized Operation Desert Storm and the political, operational, and geostrategic setting that would have shaped the classic "theater war in Europe."

Nevertheless, the Russian military has shown a deep interest in Desert Storm as a source of insight and inspiration, since it was long-respected Western technology, operator proficiency, and command flexibility that went head to head against late-generation Soviet weapons and, despite insistent Soviet denials, some key elements of Soviet force employment practice. This was particularly so with respect to coalition attacks against Iraq's air defenses and airfields during the opening phase of the war and against Iraqi armor as the ground campaign neared. For their part, the armed forces of the former Soviet Union have not even *developed* many of the precision weapons and computerized bombing systems that made the coalition's air campaign such a success.

For these reasons and others, defense planners in Moscow have good grounds for giving sober consideration to those aspects of the Gulf experience that have a direct bearing on Russia's security, yet about which they might prefer not to say much for the time being. The following may indicate some of the unspoken concerns that Russian defense professionals are currently debating behind closed doors:

- Air-to-air fighter employment tactics that are dominated all the way to the conversion phase by ground-controlled intercept (GCI), or any other offboard command and control, are a losing proposition.
- Soviet concepts of offensive air operations are past due for an overhaul.
- Top-down centralization remains critical to effective combat operations. Yet centralization without provision for flexibility in execution is a recipe for disaster.
- Hardened aircraft shelters no longer shelter.
- Stealth is the wave of the future.
- Ground warfare has also undergone a technological revolution.
- Gorbachev's "defensive doctrine" has been rendered obsolete by the end of the Cold War. The "lessons" of Desert Storm may not entirely illuminate the path toward what may be needed to replace it. But the time has come to say farewell to Soviet military doctrine and strategy.

Ultimately, the question of how the High Command in Moscow will apply its "lessons" from Desert Storm is closely tied up with the broader question of what sort of Russian military es-

tablishment—and for what purpose—will eventually emerge from the final implosion of the former USSR. Although any attempt to answer this question in the current situation would be a gamble, there is a fair chance that post-Soviet military developments could increasingly take on a more Western look as a result of the favorable role model provided by the allied performance in Desert Storm. Such a development stands to be facilitated by the eventual disappearance of the communist administrative and bureaucratic shackles that hitherto kept the Soviet military from adopting an operational style consistent with the capabilities of Soviet military hardware. This will require, however, a more realistic force modernization policy keyed to the limitations of the ailing Russian defense industry, assuming that the fiscal resources that will be needed to underwrite even such a toned-down policy will become available in sufficient time to prevent that industry from becoming completely moribund.

Some of the most important insights the Russians have drawn from the Gulf experience have been more political than military. These include an admitted need to disentangle from bad allies and a realization that it makes more sense to work *with* the West than against it. They also include an appreciation that conflict remains endemic to world affairs.

Operation Desert Storm gave the Russians an unsurpassed tutorial on what high-technology weapons, coupled with good leadership and training, can do against less well-endowed forces. Yet the most insightful commentators in Moscow have recognized that the Gulf war was not ultimately about weapon systems or “technology,” even though various weapons and other combat-support systems were indeed star performers. They well understand that the war was more fundamentally about consensus building and the orderly formation of national goals, about diplomacy and leadership in the pursuit of those goals, and about collective action in the application of combined-arms military power in a coalition context to achieve them when diplomacy and economic sanctions failed to carry the day. These are deductions from the Gulf experience that are worth pondering not just by Russians but by all.

Fortunately for the West, the end of the Cold War and the final dissolution of the USSR suggest that prospective changes in the military policy of the former Soviet state could become far more benign—and even supportive—toward the United States in the months ahead. Indeed, Washington is now at a point where it can start giving

serious thought to the possibility of working toward a formal community of security and defense cooperation with Russia. Such an arrangement could draw its inspiration from the similar American effort after World War II to bring defeated Nazi Germany into a European Defense Community which ultimately led to the creation of West Germany as a pivotal U.S. partner in NATO.

To be sure, a counsel of caution is warranted here. In times past, when the West was properly suspicious of Soviet intentions, we tended to exaggerate and overrate Soviet capabilities and prowess. Today, with Moscow's good intentions increasingly taken for granted in the West, we seem all too quickly inclined to give excessively short shrift to Russia's persistent capabilities, especially in the nuclear realm. Furthermore, Russia is not a defeated power. It is a proud country in great domestic turmoil over which the United States has little control. **The analogy between defeated Nazi Germany in 1945 and the new Russia of today is far from perfect.**

Nevertheless, a sea change has taken place in Moscow's conception of friends and enemies. This leaves us with the question of whether Russia and the shaky Commonwealth of Independent States will actually carry out the many military improvements—Desert Storm-inspired or otherwise—that Russian defense officials have embraced as essential to propelling their country successfully into the new millenium. We must await further developments for a confident answer to this question, since ongoing turmoil in the former Soviet republics reminds us only too well that to reach the long run, you have to survive the short run first.

ACKNOWLEDGMENTS

This report has benefited from the comments of numerous friends and colleagues who took the time to review an earlier manuscript. For their helpful suggestions, I would like to thank General David C. Jones, USAF (Ret.), former Chairman of the Joint Chiefs of Staff; Lieutenant General Charles G. Boyd, commander of Air University; Major General George B. Harrison, Deputy Chief of Staff for Operations, Headquarters United States Air Forces in Europe; Major General Buster C. Glosson, Director of Legislative Liaison, Office of the Secretary of the Air Force; Major General Ervin J. Rokke, USAF, Deputy Chief of Staff for Intelligence, U.S. European Command; Air Vice Marshal (Ret.) R. A. Mason and Group Captain Andrew Vallance, Royal Air Force; Brigadier General Lee Downer, Deputy Chief of Staff for Operations, Second Allied Tactical Air Force; Colonel Thomas A. Cardwell III, commander of the Air Force Studies and Analysis Agency; Colonel Storm C. Rhode III, commander of the Air Force Intelligence Support Agency; Colonel Robert D. Anderson, commander of the 480th Air Intelligence Group (TAC); Mr. Steve Dunn, Office of the Deputy Chief of Staff for Intelligence, Headquarters Tactical Air Command; and Lieutenant Colonel Bryant Shaw and other readers at the Center for Aerospace Doctrine, Research, and Education at Air University.

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Finally, I am indebted to the Rockefeller Foundation for a five-week research and writing residency in September-October 1991 at its Bellagio Study and Conference Center on Lake Como, Italy, where the first draft of this study was written.

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ABBREVIATIONS

AFP	Agence France-Presse
AWACS	Airborne Warning and Control System
CENTCOM	U.S. Central Command
CIS	Commonwealth of Independent States
CNN	Cable News Network
CPSU	Communist Party of the Soviet Union
ECM	Electronic Countermeasures
EFA	European Fighter Aircraft
EGAF	East German Air Force
FRG	Federal Republic of Germany
GCI	Ground-Controlled Intercept
GDR	German Democratic Republic
IADS	Integrated Air Defense System
IDF	Israeli Defense Force
IMEMO	Institute of World Economy and International Affairs
JSTARS	Joint Surveillance and Targeting Attack Radar System
KTO	Kuwaiti Theater of Operations
LANTIRN	Low-Altitude Navigation and Targeting Infrared for Night
LGB	Laser-Guided Bomb
NATO	North Atlantic Treaty Organization
PVO	Soviet National Air Defense
R&D	Research and Development
RAAF	Royal Australian Air Force
RAF	Royal Air Force
SAM	Surface-to-Air Missile
SHAPE	Supreme Headquarters Allied Powers Europe

TAC	Tactical Air Command
TASS	Telegraph Agency of the Soviet Union
TVD	Theater of Military Operations
U.N.	United Nations
UPI	United Press International
USAF	United States Air Force
USSR	Union of Soviet Socialist Republics

1. INTRODUCTION

As the most successfully conducted campaign in modern American military history, Operation Desert Storm has prompted a groundswell of efforts throughout the West to assess its many military and technical implications.¹ Less widely noted in this rush to divine so-called "lessons learned" from that campaign has been the close attention the Gulf war has received from Soviet and Russian military observers. It should not be surprising that Desert Storm would spark such deep interest and reflection in Moscow. The coalition's resounding defeat of Iraq's forces was a casebook example of the effective use of modern, combined-arms fire power. As such, it promises to have a fundamental impact on the doctrine and policy of the General Staff as the latter seeks to establish its place in the post-Cold War and post-Soviet world.

This was not the first opportunity the Soviets had to learn from the combat experiences of their Middle Eastern clients.² It was, however, their first exposure to a local war of such technical sophistication and strategic import. The United States, allied with British, French, and other coalition partners, used the best of its high-technology conventional arms in an unrestricted assault against an adversary possessing what was widely touted to be the world's fourth-largest

¹The literature on the Persian Gulf war has become too prolific even to begin accounting for it here. The most thorough of the many source documents to have appeared to date is the recently released three-volume U.S. Defense Department study, *Conduct of the Persian Gulf Conflict: Final Report to Congress*, Washington, D.C., Office of the Secretary of Defense, April 1992. Remarkably, with more than a year gone by since the March 1991 cease-fire, there remains no comprehensive American account of the pivotal role played by allied air power in the coalition's campaign strategy. This gaping hole has been at least partly filled, however, by the excellent and detailed study by Wing Commander Gary Waters, *Gulf Lesson One—The Value of Air Power: Doctrinal Lessons for Australia*, Air Power Studies Center, RAAF Base Fairbairn, Canberra, Australia, 1992. A "Gulf War Air Power Survey" of broad scope and declared intent to evaluate the air war's accomplishments, much in the manner of the U.S. Strategic Bombing Survey conducted after World War II, is now being carried out under the sponsorship of the Secretary of the Air Force. See also Richard Hallion, *Storm Over Iraq*, Washington, D.C., Smithsonian Institution Press, 1992, forthcoming. A good overview assessment is Lawrence Freedman and Efraim Karsh, *The Gulf Conflict, 1990-91: Diplomacy and War in the New World Order*, Princeton, Princeton University Press, 1993, forthcoming.

²For a notable earlier example, see Benjamin S. Lambeth, "Moscow's Lessons from the 1982 Lebanon Air War," in Air Vice Marshal R. A. Mason, ed., *War in the Third Dimension: Essays in Contemporary Air Power*, London, Brassey's Defense Publishers, 1986, pp. 127-148.

army. The war confirmed Marshal Nikolai Ogarkov's widely publicized fears during the early 1980s regarding the danger that Western precision-strike weaponry would, if not countered by the USSR, rapidly undermine and destroy the foundations of Soviet military strategy.³

Why is this war worth examining from a Russian perspective?⁴ For one thing, it was conducted against the USSR's principal military client, which had been heavily armed with Soviet weapons and an operational philosophy to match. Desert Storm thus came as close as one might reasonably expect to being a laboratory test of the American and Soviet ways of war, at least as far as the coalition's offensive counterair operations and Iraq's integrated air defenses were concerned.⁵ For that reason alone, the war has triggered introspection across a wide range of Soviet military precepts that should yield important clues as to how the former Soviet High Command will eventually proceed with reforming and modernizing its armed forces.

Far more important than anything it may tell us about future *Russian* defense policy, however, is the value to be gained in our *own* understanding of Desert Storm from what well-informed commentators in Moscow have had to say about it. The General Staff has long been rightly known to be one of the world's great repositories of expert thinking on strategy and war. To a considerable degree, its commentary has overlapped many of the issue areas that have been hotly debated within the American defense community, notably the

³Details on these fears and how they figured in the Soviet defense debate are presented in Rose E. Gottemoeller, *Conflict and Consensus in the Soviet Armed Forces*, RAND, R-3759-AF, October 1989, pp. 9-21.

⁴Use of the term "Russian" here rather than "Soviet" is intentional. This is a hard time to be writing about what we once knew as the USSR because of the kaleidoscopic changes it has experienced since the failed August 1991 coup and the subsequent collapse of the Soviet state. For the sake of consistency, passages dealing with events that occurred before the August coup will use the familiar terms "Soviet," "Soviet Union," and "USSR." Treatment of more recent and future developments will speak of the "former USSR," "Russia," or the "Commonwealth of Independent States" as context dictates.

⁵Some readers in Moscow will bridle at this statement and insist that Iraq's ineffectual air defense was not a fair representation of Soviet operational style. However, as Richard Hallion has written, "Iraq patterned its air defense network upon standard Soviet practice: A strongly internettted, redundant, and 'layered' air defense system that blended radars, hardened and buried command and control facilities, surface-to-air missiles, interceptors, and antiaircraft artillery." More tellingly yet, "on the eve of the war, the defenses of Baghdad were denser than the most heavily defended Eastern European target at the height of the Cold War, and seven times as dense as Hanoi's defenses before Linebacker II in 1972." *Reaching Globally, Reaching Powerfully: The United States Air Force in the Gulf War*, Washington, D.C., Headquarters United States Air Force, September 1991, p. 5.

relative importance of—and interplay among—such core factors affecting combat performance as leadership, doctrine, motivation, training, technology, equipment, and concepts of operations. Insofar as we can separate serious reflection from the more parochially motivated aspects of Moscow's rhetoric on Desert Storm, the resultant image should prove both insightful and illuminating to American military and defense professionals.

Of related importance, the war was fought for high stakes that included at least the near-term dominance of the Persian Gulf and the greater Middle East. Yet unlike their position in the 1973 Yom Kippur war and the 1982 Lebanon war, the Soviets were aligned with the multinational coalition and opposed Iraq's invasion of Kuwait from the outset. True enough, they were less enthusiastic than many about Washington's commitment to use force if necessary to drive Iraq out of Kuwait. But they were not pitted against the coalition in an adversary relationship.

Indeed, Soviet diplomatic support and military noninvolvement were key factors in assuring the campaign's success. This must have taken at least some of the sting out of the Kremlin's experience of watching its leading arms recipient and some of its most cherished weapons endure such a rout. Furthermore, there was no major contingent of Soviet military advisers in Iraq once the war began, unlike the case of Soviet involvement with the Syrians during the Lebanon war. As a result, the Gulf war gave the High Command a chance to learn extensively from a combat test in which they ran no direct risk of being branded the losers.

In addition, the war came at a time when President Mikhail Gorbachev's reforms had rendered the Soviet defense establishment far more open than during previous local-war experiences. Thanks to that, Soviet commentary was remarkably frank and expressive, providing a rare window into Soviet thinking on the implications of observed combat actions.⁶

It is too early to say where the Russians stand with regard to the conclusions they have drawn from the war's course and outcome. It will be some time before we can claim to have any firm evidence along these lines. The most convincing proof will lie in the changes the

⁶For two early American reports on that commentary, see Captain Gilberto Villahermosa, *Desert Storm: The Soviet View*, Fort Leavenworth, Kansas, Soviet Army Studies Office (SASO), U.S. Army, March 1991; and Mary C. FitzGerald, *The Soviet Image of Future War: Through the Prism of the Persian Gulf*, Washington, D.C., Hudson Institute, HI-4145, May 1991.

Russian military makes in its resource allocation priorities and operational practices. For the moment, these are far from urgent concerns, given Moscow's preoccupation with building a viable economy and democracy out of the wreckage that was once the USSR.

Nevertheless, a searching inquiry into the broad historical and operational meaning of the Gulf war has taken root in the former Soviet Union. Russian spokesmen have conceded that the coalition's air performance will require "especially attentive" analysis. Up until now, Soviet military doctrine has relegated air warfare to the status of combat support. Yet an air force colonel noted with unusual bluntness immediately after the war that Iraq's defeat meant that Soviet doctrine and Moscow's entire approach to force development had been rendered obsolete.⁷ Marshal Dmitri Yazov, the Minister of Defense (later dismissed and jailed for his role in the abortive August 1991 coup), stated that a complete review of Soviet air defenses was needed as a result of the war's outcome.⁸ He further admitted, with masterful understatement, that Iraq's air defenses "failed in most cases."⁹

In light of these considerations, the present report has several objectives. First, it reviews the highlights of Soviet commentary on the Gulf crisis from the time of Iraq's invasion of Kuwait on August 2, 1990, through the Desert Shield buildup that culminated in war on January 17, 1991. Second, it presents a comprehensive overview of Soviet reportage and, where available, analysis of the war's course and outcome, starting from the commencement of hostilities until a cease-fire was declared by the coalition six weeks later. Third, insofar as the evidence permits, it outlines various conclusions drawn by the Russians from the war experience, as well as differing Russian views that have emerged on selected aspects of the war. Finally, it recapitulates the main insights that ranking officers in the former Soviet armed forces claim to have gleaned from the war and considers some of the unspoken, but perhaps more critical, implications about which the Russian defense community may be privately brooding but not saying much. This concluding section also explores some implications

⁷Colonel (now Major General) Alexander Tsalko, quoted by TASS international service, March 1, 1991.

⁸Peter Fuhrman, "Soviet Generals to Gorbachev: We Are Defenseless," *Forbes*, April 1, 1991, p. 42.

⁹Quoted in *The Manchester Guardian*, March 2, 1991. See also Alexander Velovich, "USSR Demands Post-Gulf Air Defense Review," *Flight International*, March 13-19, 1991, p. 5.

of the failure of Iraq's air defenses for Russian tactical air training, mission employment, and future investment strategy.

A Note on Approach. This report is not a hunt for Russian "lessons learned" from Desert Storm. Along with many students of military affairs, I find that term a troubling oversimplification of events that defy quick or easy explanation. It is also a facile catch-phrase that runs the risk of subverting analysis to the cause of supporting tendentious policy conclusions.¹⁰

On the first count, sweeping events like Desert Storm are not occurrences in which "the facts" speak for themselves. On the contrary, they are vast storehouses of information from which one can selectively "prove" almost anything. For that reason, they place a high premium on detachment and the judicious use of informed insight to extract the profound from the prosaic—or, worse yet, the dangerously misleading. This demands explication, not merely artful "data reduction."

The challenge of this is compounded many times over when one seeks to adduce "lessons" from evidence that remains highly incomplete. As Anthony Cordesman has rightly noted, "instant history is almost invariably shallow history." In the case of the Gulf war, "many of the facts and statistics that seemed reliable right after the war are now being proved wrong. These include much of the information on Iraqi losses, the true nature of the air campaign, the performance of various weapons systems, and the tactical and strategic impact of particular battles."¹¹ Not without reason did Clausewitz highlight the "fog of war" as a hallmark of such events.

A related problem with the "lessons learned" approach is its tendency to drive its practitioners into an overly narrow approach to combat operations, thereby reading too much into a given situation. From this, it is but a short step to the complacent urge to think of discrete events like Desert Storm as literal scripts for *all* future contingencies.

Yet another pitfall in seeking pat answers from complex events like the Gulf war is epistemological and concerns whether such answers are even there to be found, in and of themselves, in any recognizable form. Sir Michael Howard has suggested as a baseline premise in this regard that "history, whatever its value in educating the judg-

¹⁰I am indebted to Lieutenant General Charles G. Boyd, commander of Air University, for urging me to lay out in detail the points developed in this section.

¹¹Anthony H. Cordesman, "The Fog of War and the Fog of Politics," *New York Times Book Review*, April 5, 1992, p. 7.

ment, teaches no 'lessons,' and the professional historian will be as skeptical of those who claim that it does as professional doctors are of their colleagues who peddle patent medicines guaranteeing instant cures Historians may claim to teach lessons, and often they teach very wisely. But 'history' as such does not."¹²

Finally, there is a temptation in the "lessons learned" approach to use history as a convenient grab-bag for "confirming" insights derived through motivations less noble than the spirit of free inquiry. As retired Air Vice Marshal R. A. Mason of the Royal Air Force has bluntly commented on this point: "Conclusions will in many instances be drawn by analysts who, because of the color of their military uniform or their association with a particular defense industry, will occasionally be inclined to select a particular lesson from evidence which may to others seem more ambiguous."¹³ Air Marshal Ray Funnell, Chief of Staff of the Royal Australian Air Force, has likewise noted how "both military professionals and civilian analysts can be highly selective in collecting data and forming judgments about military conflict A common tendency is to extract data and form conclusions which accord with one's preconceptions."¹⁴

For all these reasons, I prefer to live by Air Vice Marshal Mason's admonition that "initial reflections, rather than confident lessons, are appropriate at this juncture in the study of the Gulf war." Insofar as the present report seeks to identify first-order impressions that Russian observers appear to have drawn from Desert Storm to date, it will treat these, at least for the time being, as "observations deduced" or, more modestly yet, as "lessons indicated," in the suggested rubric of USAF Lieutenant General Clifford Rees.¹⁵

¹²Michael Howard, *The Lessons of History*, New Haven, Yale University Press, 1991, pp. 11-13.

¹³Air Vice Marshal R. A. Mason, "The Air War in the Gulf," *Survival*, May-June 1991, p. 225.

¹⁴Air Marshal R. G. Funnell, "The Essential Place of Conventional Air Power in an Uncertain 21st Century," in Alan Stephens, ed., *Smaller But Larger: Conventional Air Power Into the 21st Century*, Canberra, RAAF Air Power Studies Center, 1991, p. 15.

¹⁵Conversation with Lieutenant General Clifford H. Rees, Jr., Vice Commander in Chief, United States Air Forces in Europe, Ramstein Air Base, Germany, June 13, 1991.

2. SOVIET PRONOUNCEMENTS DURING DESERT SHIELD

It came as a welcome relief to Americans and Russians alike during the earliest hours of the Gulf showdown how straightforward crisis diplomacy seemed to have become when decisionmakers on both sides could contemplate their options without the need to worry about an escalation process that might draw the two superpowers into a nuclear confrontation. The tenor of Soviet commentary on the crisis was established at the outset in a joint statement signed at Vnukovo airport near Moscow on August 3 by Secretary of State James Baker and Foreign Minister Eduard Shevardnadze.

This statement put the United States and the Soviet Union squarely on record in calling on the United Nations Security Council to "condemn the flagrant, unlawful invasion of Kuwait by the armed forces of Iraq." It also announced that the USSR was terminating its supply of arms to Iraq, and it called on the international community to join Washington and Moscow in supporting a halt to military assistance to Baghdad.¹

On the latter count, Moscow had a lot to lose. Iraq had been a major purchaser of Soviet arms and was a critical source of hard currency for the foundering Soviet economy. Even before the Gulf crisis eventuated in war, there had emerged clear signs that the High Command and other conservatives were unhappy with the vector of Gorbachev's policy toward the situation.² Indeed, Moscow's support for the Bush

¹TASS communiqué in English, August 3, 1990. As a RAND colleague has noted, this joint statement and the initial U.N. sanctions against Iraq's occupation of Kuwait were to represent "the high point of U.S.-Soviet cooperation" in the Gulf crisis. This does not vitiate, however, the fact that a sea change had occurred in the chemistry of international crisis management as a result of said Soviet cooperation, even though Moscow's subsequent declaratory posturing sought increasingly to differentiate Soviet interests in the Gulf and elsewhere from those of the United States. See Graham E. Fuller, "Moscow and the Gulf War," *Foreign Affairs*, Summer 1991, p. 59.

²In one of many such indications, Fyodor Burlatskii wrote in *Literaturnaiia gazeta* a week before the outbreak of the war that many Soviet generals retained a "staggering friendliness" toward Hussein and yearned for the time when Iraq was the Kremlin's main arms client and foreign assignment option for Soviet advisers. Reported by Suzanne Crow in *Radio Liberty Research*, January 16, 1991. Some months earlier, a senior U.S. defense official acknowledged this same affinity and added that "a lot of these people don't want to see that relationship completely ruptured." Quoted in Melissa Healy, "Kremlin Split Keeps Soviets in Iraq, U.S. Says," *Los Angeles Times*, September 26, 1990.

Administration's policy stood on shaky grounds from the very beginning. As my colleague Eugene Rumer has noted, "many of Gorbachev's newly found and uneasy coalition partners were very resentful of the United States and its policy in the Gulf and were trying to influence him and, through him, the course of Soviet policy in a less pro-American direction which would help avoid a war resulting in a humiliating defeat of someone whom *they* considered a client."³

Nevertheless, the facts that Moscow joined ranks with the coalition against Iraq's invasion of Kuwait, halted its military aid to Baghdad and withdrew its technical advisers, and supported a U.N.-sanctioned economic embargo of Iraq all indicated that the West was dealing with a Soviet partner quite unlike the one it had come to know so well during the Cold War. Whether President Bush would have elicited the same response in January 1991 that he did in September 1990, once the conservatives had begun to pressure Gorbachev on the domestic front and heads had been cracked in Lithuania, is anyone's guess. But Moscow's nonresupply of Iraq throughout Desert Storm was crucial in assuring that the coalition would dispatch the Iraqi army in due course.

Soviet spokesmen almost immediately accepted the Baker-Shevardnadze announcement as evidence of a major transformation in the relationship between the two superpowers. Shevardnadze himself noted how hard it had been for the Soviet government to accede to the declaration, considering Moscow's decades-long patron-protégé relationship with Iraq. Yet he stressed that "we had to make such a step, since everything that is happening in Kuwait . . . runs counter to the principles of the new political thinking and civilized relations between states."⁴ Subsequent press comment echoed this tone, calling the joint ministerial statement an event that was "unprecedented in the postwar years" and, as such, "a test of strength for U.S.-Soviet relations."⁵

POLITICAL AND REGIONAL CONCERNS

Most Soviet spokesmen were quick to embrace this new image of East-West cooperation. *Izvestiia* commentator Stanislav Kondrashov

³Personal communication, February 27, 1992.

⁴Konstantin Voitsekhovich and Georgiy Shmelev, TASS communiqué in English, August 3, 1990.

⁵Valentin Gubernatorov and Viktor Levin, Radio Moscow domestic service, August 4, 1990.

noted approvingly how the United Nations was no longer "split into two camps" and how the resolution had "deprived some Third World states of the opportunity to play on contradictions and enmity between the nuclear powers for their own ends."⁶

Another commentator remarked how even in the recent past, "a common stand between the two countries in any crisis would have been unthinkable." He said the joint statement indicated an abandonment of the old zero-sum rule that "any event detrimental to one side was beneficial to the other." He also voiced hopes that the mutual understanding would stand as "an example that might be followed in other areas of Soviet-American contact."⁷

In resonance with most Soviet press commentary, Alexander Bovin spoke approvingly of Washington's initiatives and applauded Moscow's support of them. Blaming Baghdad's "cynically aggressive actions" as having left the Kremlin with no choice, he noted: "Not to support it, but simply to close one's eyes and pretend that nothing unusual was happening, would mean showing the world the hypocrisy and duplicity of Soviet international policy." Bovin added that it was hard to "fault the Americans for getting on with it, for not waiting for the U.N. 'rear' to catch up and take responsibility. They are taking a risk, of course. All the more reason for wishing them success."⁸ Perhaps best summarizing the thrust of Soviet comment was a pronouncement by *Izvestiia's* chief editor, Igor Golembiovskii, that the Baker-Shevardnadze statement represented the "final punctuation mark in the history of the Cold War."⁹

These remarks were accompanied in some cases by self-critical expressions of Soviet culpability for having allowed the crisis to develop in the first place. They were also counterbalanced by hints of uneasiness over Moscow's role as a supporting bystander in the face of vigorous American measures against a long-time Soviet client. As one commentator noted, "it can only be regretted that military hardware supplied to Iraq by the USSR over the years has constituted the basis of the military might" that invaded Kuwait. This reporter added, with noticeable discomfiture, that "we are not . . . accustomed to arms supplied by the Soviet Union sometimes being used by recipient coun-

⁶Stanislav Kondrashov, "Together Against the Aggressor," *Izvestiia*, August 7, 1990.

⁷Radio Moscow, international service, August 11, 1990.

⁸Alexander Bovin, "The Kuwait Test," *Izvestiia*, August 24, 1990.

⁹"International Panorama," Moscow television service, August 18, 1990. This commentator added that "if Saddam Hussein remains in Kuwait, he will become the arbiter of the economic development of at least half of the world."

tries . . . to foment regional conflicts to satisfy the ambitious designs of shortsighted politicians."¹⁰

Portions of the media, however, seemed reluctant to criticize Saddam Hussein directly. It was not uncommon for Soviet statements to downplay his invasion of Kuwait as merely the result of a "strategic miscalculation."¹¹ One writer noted that although Hussein was "capable of surprise moves," he was no "latter-day Hitler." Soviet pronouncements also denied that Moscow had been engaged in any intelligence sharing about Iraqi force dispositions with the U.S. Defense Department.¹²

The greatest unease in Moscow centered on the implications of the impending showdown for Soviet security. The commander in chief of Warsaw Pact forces at the time, Army General Vladimir Lobov, was among the first to warn that a continuation of Desert Shield could result in a "single arch between NATO's eastern wing and Saudi Arabia," which would "drastically alter the strategic balance in the region."¹³ With Iraq only 200 km from Soviet Transcaucasia, he

¹⁰A. Shumilin, "The Armor Is Strong and the Tanks Are Ours: Iraqi Troops Have Invaded Kuwait and Occupied the Capital," *Komsomolskaia pravda*, August 3, 1990. This title is a takeoff on a popular Soviet pre-World War II song, the first line of which goes: "The armor is strong and our tanks are fast . . ."

¹¹Commentary by Boris Parkhomenko, Radio Moscow domestic service, August 3, 1990.

¹²According to one report from unnamed Bush Administration officials, Moscow provided the United States with "reams" of useful information about Iraqi military capabilities. In the words of one spokesman: "You can't say they are giving us all their secrets. That would be misleading. But they have provided us with technical and military information which we consider helpful." Quoted in George de Lama and Timothy J. McNulty, "Soviets Giving Iraqi Military Secrets to U.S.," *Chicago Tribune*, September 6, 1990. In an attempt to play down sensational allegations of an alleged "secret cooperation" between Moscow and Washington regarding intelligence sharing, a TASS reporter said that things were "much simpler in reality." He went on to cite the "well-known contacts in the military sphere recently established by the United States and the Soviet Union" and acknowledged that in the context of these developing contacts, the Soviet defense attaché in Washington, General Yakovlev, had recently visited the Pentagon and, "in response to a request of the U.S. side, he gave some information about the USSR's cooperation with Iraq along military lines." Yuriy Kornilov, TASS communiqué, August 22, 1990.

¹³Quoted in a TASS communiqué by Andrei Orlov, August 30, 1990. A military reporter later expanded on these concerns, pointing out that "never before since World War II had the United States carried out such a massive airlift of troops and hardware within such a brief period." He added that "the question naturally arises whether this situation will lead to a significant expansion of NATO's southern flank." Commentary by Colonel Vadim Solovev, Radio Moscow international service, September 19, 1990. After the war ended, the Soviet navy likewise acknowledged the contributions of American airlift, but added that 96 percent of all cargo delivered from the United States to Saudi Arabia was sealifted. Citing Western sources, it concluded that "the

added, this would "give the United States an opportunity to exert pressure on events in this region."¹⁴ Marshal Sergei Akhromeyev, Gorbachev's security adviser, also identified himself with this view when he allowed that "a danger of war in the Gulf exists The USSR cannot remain indifferent when a large U.S. military grouping has appeared not far from Soviet southern frontiers. That affects our interests and causes a certain concern."¹⁵

Foreign Ministry spokesman Gennady Gerasimov rejected these expressions of military concern and defended Washington's decision to airlift troops to Saudi Arabia as a legitimate response to Iraq's invasion of Kuwait. In a specific reaction to Lobov's charge, Gerasimov said he could see "no connection" between Washington's actions in the Gulf and the larger East-West military balance in Europe. He also dismissed as "personal opinion" a reporter's comment in *Pravda* the week before that America's conduct in the Gulf threatened to undo Soviet-American detente.¹⁶

By the end of October, it had become commonplace for Soviet spokesmen to assert that "if isolation and blockade prove unsuccessful, force will be used."¹⁷ Gorbachev's adviser Yevgeniy Primakov, whose shuttle diplomacy had borne few results, finally conceded that "events are leading to war."¹⁸ This accelerating tendency to accept the inevitability of war attained its zenith after the passage of U.N. Resolution 678 on November 29, 1990, which authorized the use of force by the coalition by January 15 should Iraqi troops remain in

world has never before seen a strategic sealift and airlift like this one." V. Kozhevnikov, "The U.S. Armed Forces' Strategic Deployment During the War Against Iraq," *Morskoï sbornik*, No. 4, April 1991, pp. 61-64.

¹⁴Several days later, Stanislav Kondrashov acknowledged the existence of this concern but went on to say that "there are no grounds for supposing there will be any increased threat to the Soviet Union." He added that "our eyes are wide open to our fears," but then suggested that it was "time to replace irrational fears with new thinking" and to recognize the Gulf crisis first and foremost as "a testbed for the Soviet-American partnership." "And This Time in Helsinki," *Izvestiia*, September 4, 1990.

¹⁵Interview by Vladimir Ostrovskii, Novosti Press Agency, October 5, 1990.

¹⁶Michael Dobbs, "Moscow's Spokesman Defends U.S. Against Military Critics of Buildup," *Washington Post*, September 4, 1991. This retort by Gerasimov was but one sign of a broader rift between the Foreign and Defense Ministries over appropriate policy toward the Gulf crisis. For more background on this division, see John Van Oudenaren, *The Role of Shevardnadze and the Ministry of Foreign Affairs in the Making of Soviet Defense and Arms Control Policy*, RAND, R-3898-USDP, July 1990.

¹⁷Yuriy Glukhov, "Sowing the Wind," *Pravda*, October 28, 1990.

¹⁸Interview by Kim Gerasimov, Moscow television service, October 31, 1990.

Kuwait at that time. In that spirit, *Izvestiia* noted tersely that "the clock has been started."¹⁹

MILITARY CONSIDERATIONS AND FORECASTS

The Baker-Shevardnadze statement of August 3 and Moscow's endorsement of U.N. Resolution 678 in late November sandwiched a period of unprecedented Soviet-American cooperation in international crisis diplomacy. The most divisive question concerned whether Soviet forces would be committed to help underwrite the coalition's effort. This prompted contrapuntal arguments between those inclined to see the crisis as a chance for Moscow to show its commitment to a "partnership" with the United States and those of more traditional bent who recalled Afghanistan and would have nothing to do with Moscow's playing second fiddle to Washington in any arrangement that would put Soviet forces under an American commander.

In the immediate wake of the Soviet-American joint statement in August, it had been intimated that the USSR might be prepared to commit a military presence in the Gulf alongside other coalition members.²⁰ The Defense Ministry insisted, however, that Soviet troops would *not* take part in any such intervention in the Gulf. Citing Moscow's earlier "unfounded decisions" to commit troops in Czechoslovakia and Afghanistan to carry out their so-called "internationalist duty," it stated that "there are no Soviet soldiers involved in military operations anywhere in the world, and there is every reason to believe this situation will continue."²¹

One of the clearest expressions of the opposite view came not long thereafter from Karen Brutents, deputy chief of the Communist Party's International Department. When asked whether the Kremlin was prepared to consider military involvement in the Gulf, Brutents answered: "Yes, but only under the U.N. flag." After admitting that the Soviet army was not yet preparing for any deployment to the

¹⁹M. Yusin, "Saddam Hussein's Last Chance," *Izvestiia*, December 2, 1990.

²⁰By one account, the Soviets went so far in this regard during the early days of the crisis as to allow a team of U.S. naval officers to come aboard Soviet naval vessels patrolling the Gulf for the purpose of coordinating radio frequencies and communications procedures "for possible joint action should war break out." James Adams, "U.S. Navy Officers to Join Soviet Warships in Gulf," *Sunday Times* (London), September 2, 1990.

²¹Agence France-Press (AFP) communiqué, August 8, 1990.

Gulf, he then repeated: "I do not rule out our participation in a multi-lateral force under U.N. auspices."²²

With the lines thus drawn, Defense Minister Yazov again declared that the High Command had no intention of honoring a reported request from Washington that Soviet troops join the American-led multinational force in the Gulf.²³ By this time, it had become apparent that Desert Shield had precluded an Iraqi attack on Saudi Arabia and that the coalition was strong enough to render moot the question of a *military* need for Soviet participation. The real concern was to keep the USSR on board *diplomatically* in support of the various U.N. resolutions that would be needed to legitimize any military move to dislodge Iraq from Kuwait.

As the day of reckoning approached, Gorbachev's adviser Yevgeniy Primakov demurred on the question of a Soviet troop deployment. "As regards military participation with the international forces," he said, "I cannot offer a simple answer to that question. The Soviet constitution stipulates that the president has the right to declare war only if aggression is committed against the Soviet Union. In all other cases, a decision must be made by the Supreme Soviet of the Soviet Union." Primakov added that any decision to send Soviet troops to the Gulf would be solely up to the Supreme Soviet.²⁴

Once the passage of Resolution 678 signalled the final countdown for war, Shevardnadze pronounced that the only event that might conceivably trigger a Soviet military intervention would be a threat to the lives of Soviet citizens in Iraq. Short of that, he voiced doubt that the Supreme Soviet would endorse any direct military involvement, again citing memories of Afghanistan and Czechoslovakia.²⁵ A week later, Foreign Ministry spokesman Vitaliy Churkin quoted a report to

²²Interview by *L'Unita* (Milan), August 17, 1990.

²³Interview by *Kyodo* (Tokyo), September 17, 1990. As if to underscore that this was just one point of view, Karen Brutents of the CPSU's International Department again stated in an interview with an Italian reporter that were the question to arise about a commitment of Soviet troops in connection with an agreed U.N. decision to use force against Iraq: "I believe that we would not shirk our responsibility." Interview by Massimo Boffa, *L'Unita* (Milan), October 2, 1990.

²⁴Interview with *Al-Sharq Al-Awsat* (London), November 7, 1990.

²⁵TASS communiqué, November 30, 1990. In language evidently intended to persuade Hussein to release all Soviet detainees (something he in fact did several days later), Shevardnadze added that were even a single Soviet citizen to suffer, "the consequences can be most serious. Then we can act without the decision of the Supreme Soviet Let everyone know that."

the Supreme Soviet by Shevardnadze stating that the USSR "has no plans to use its forces in the Persian Gulf or anywhere else."²⁶

Of greater relevance to an appraisal of Soviet views on the coming war were the comments of various spokesmen that may have telegraphed Moscow's underlying assessment of the balance of forces that would determine the outcome. As one might expect, opinions were divided, ranging from confidence that the coalition would dispatch the Iraqis forthwith to a more questioning portrayal of the coalition's staying power.

At one extreme, when the United States had just begun its deployment of troops and combat aircraft to Saudi Arabia, a Soviet reporter said it was "hardly likely" that the United States would, at least in the "near future," be able to concentrate enough forces in the region to cope successfully with the Iraqi army.²⁷ Similar doubts about American tenacity were aired during a radio forum in which a reporter suggested that the "traditionally strong" naval power of the United States "would not be so absolutely significant" in the Gulf, since Iraq "has a very strong air force," including "its own AWACS system developed on the basis of the Soviet Il-76 transport aircraft and French electronics." This reporter added that Iraq also had the Soviet MiG-29 fighter, which, he said, is "assessed by West German experts as being superior in its capabilities to all Western tactical fighters and even to the European fighter currently being developed."²⁸

²⁶Quoted in G. Charodeyev, "Could Soviet Troops Be Used Abroad?" *Izvestiia*, December 6, 1990.

²⁷Commentary by V. Lobachenko, Moscow television service, August 8, 1990. Similar skepticism regarding the ability of the United States to stand up to Iraq was voiced in a reporter's comment that "Iraq has an army of a million men. The West will hardly be in a position to put up against it more than 150,000. Nor should the combat experience of Iraq, which has only recently ended the war with Iran, be forgotten." A. Bushuyev, "Iraq-Kuwait: No Prospects," *Rabochaia tribuna*, August 9, 1990.

²⁸Comment by Alexander Korshunov, International Observers' Roundtable, Radio Moscow domestic service, August 12, 1990. German appraisals of the MiG-29 vary widely and turn heavily on who is doing the appraising—and for what purpose. Without demeaning the Soviet fighter's respectable performance in comparison to its Western counterparts, it must be said that the airplane has become highly politicized since 24 of them entered the Luftwaffe's inventory in 1990 as a byproduct of unification. Among other things, this has provided ready ammunition for domestic critics of Germany's continued involvement in what promises to be a very expensive European Fighter Aircraft (EFA) program. As one Bundeswehr general remarked about the MiG-29 in this regard: "Two years ago the Luftwaffe told us we *had* to build EFA to counter it. Now the Luftwaffe tells us it's a piece of dogmeat and we need to buy EFAs because the MiG-29 can't hack it." Quoted in *Armed Forces Journal International*, December 1990, p. 32.

A more balanced appraisal of the military situation came a month later in a *Pravda* statement that the Gulf had become the scene of the "largest concentration of manpower and military equipment since World War II." Although this article did not predict the likely outcome of the impending showdown, it noted that economic sanctions would take many months to become effective and that this would be "too long for an impatient, politically mobile America."²⁹

Soviet commentators grew noticeably more respectful of the expanding American presence in Saudi Arabia when they learned of Washington's ostensible war plans, the public airing of which had prompted the dismissal of USAF Chief of Staff General Michael Dugan by Secretary of Defense Richard Cheney. One account reported General Dugan's comment that in addition to the "traditional" targets of air power (such as military airfields, air defense systems, weapons production plants, and the like), the United States would emphasize the Iraqi leadership as a target, with the intent to "decapitate" it.³⁰ Another report dealing with General Dugan's dismissal noted that although the USAF leader had been let go for having spoken "indiscreetly," the Bush Administration "did not refute the actual content of the general's interview."³¹

As Desert Shield gained momentum, Alexander Bovin saw a "60 to 70 percent probability of war," adding that "the likelihood of a rapid defeat for Iraq in case of war is obvious."³² In a similar view, a radio comment pointed out that "the turn of events in the machinery for inflicting a military blow on Iraq has happened so fast that it has become hard for its wheels to grind suddenly to a halt and go into reverse."³³ Yet another reporter predicted that the ensuing conflict "could develop into the biggest war since the Second World War."³⁴

²⁹Gennady Vasiliyev, "Nuances of the Crisis," *Pravda*, September 2, 1990.

³⁰A. Blinov, "Persian Gulf: A Dangerous Exacerbation of the Situation," *Izvestiia*, September 18, 1990.

³¹A. Blinov, "Persian Gulf: A General Sacked," *Izvestiia*, September 19, 1990. A later comment added that General Dugan had "not suffered in vain" since, in talking openly about U.S. capabilities and options against Iraq, "he was simply passing on a secret of President Bush's." Igor Belyayev, "The Persian Gulf: War Begins on October 15," *Literaturnaia gazeta*, No. 41, October 10, 1990, p. 14.

³²Moscow television service, October 6, 1990.

³³Mikhail Mayorev, Radio Moscow international service, October 23, 1990.

³⁴He grudgingly added that the panoply of forces already amassed in the Gulf was so great that "adding a few Soviet ships or a few thousand Soviet troops is not going to help tip the balance against Saddam Hussein. So if it does start, the military value of Soviet participation will be minimal." Sergei Piekhanov, Institute of the USA and Canada, Radio Moscow international service, November 2, 1990.

One of the most insightful comments on the military situation came in late December after Resolution 678 had been passed. This account portrayed the United States as being "in a very serious frame of mind" and indicated that "there is virtually no doubt that the Americans will win." A key reason given was that "they have indisputable superiority in the air" and would fight well against the Iraqis, who, "despite their enormous numerical strength, do not have high military qualities."

This commentator doubted that Washington would "undertake a frontal assault on Kuwait." Instead, he foresaw a "decisive strike on Iraqi territory" by the coalition, whose forces would then "cut off the grouping that has entrenched itself in Kuwait."³⁵ As for extreme actions the Iraqi leader might take, such as using chemical weapons, the analysis cited Western expectations that "the intensive bombing to which Iraqi military installations will be subjected in the first few hours of military action . . . will prevent Hussein from carrying out these plans."³⁶

Soviet commentators offered few predictions as to whether the war would be dominated by air power or ground forces. One of the first military pronouncements on this theme, consistent with known Soviet doctrinal proclivities, asserted that "actions by aircraft alone . . . would be limited just to punitive actions, hardly changing in essence the situation created as a result of the Iraqi invasion."³⁷ Another article, however, claimed that "if hostilities begin, a massive strike will be carried out against vital installations in Iraq—air bases, missile launchers, military enterprises, and plants producing chemical weapons. Iraq's combat effectiveness will thus be inevitably under-

³⁵This Soviet prediction occurred on December 18, more than a month before General Colin Powell's widely publicized January 23 statement that the coalition's planned strategy for ousting Iraq's army from Kuwait was: "First we're going to cut it off, and then we're going to kill it." Quoted in Andrew Rosenthal, "Pentagon Is Confident of War But Says Iraqis Remain Potent; Sees No Imminent Land Attack," *New York Times*, January 24, 1991.

³⁶M. Yusin, "The Persian Gulf Crisis Is Coming to a Head," *Izvestiia*, December 18, 1990. A military journalist was not so sanguine. He noted ominously how "it is far easier to begin a war than to get out of it later" and added that either the use of chemical weapons by Iraq or a "playing of the Israeli card" would precipitate "an instantaneous collapse of the anti-Iraq coalition." He also rejected the "euphoric view that the grouping of U.S. troops was so powerful that it will deal with the Iraqi troops in an instant." Major R. Mustafin, "There Is Still Time," *Krasnaia zvezda*, December 20, 1990.

³⁷Vasily Pustov, "Aggression Cannot Be Tolerated," *Krasnaia zvezda*, August 8, 1990.

mined."³⁸ Much the same tone emanated from an article reporting on an interview with an American officer in Saudi Arabia, who said that "air power will undertake the main function of destroying enemy personnel and equipment."³⁹

The closest any Soviet spokesman came to predicting that air power would dominate allied strategy was the suggestion of one journalist in mid-November that should war come, "the United States will immediately demonstrate its air superiority. The Iraqi air force and anti-aircraft defense will, perhaps, be wiped out, together with a considerable part of that country's missile potential." This report cautioned that the tempering of Hussein's forces in the long Iran-Iraq war might embolden them to "offer resistance for weeks, if not months." It concluded, though, that "Iraq's defenses will quickly collapse."⁴⁰

Like most Western pundits, those Soviets willing to speculate about casualty levels uniformly overstated the number of losses the coalition would sustain. One early forecast, citing U.S. authorities, placed American losses at between 20,000 and 30,000 if Saddam Hussein used chemical weapons.⁴¹ A Moscow radio commentator offered a slightly lower estimate of 15,000 to 20,000 allied casualties.⁴² But no one suggested that allied air operations would completely neutralize Hussein's war machine and obviate any need for significant allied casualties in a ground war.⁴³

³⁸A. Shumilin, "To Arms? Three Possible Scenarios for the Start of Combat Operations Against Iraq," *Komsomolskaia pravda*, October 10, 1990.

³⁹This marine was also quoted as having said that "night training is a regular thing for all of us. First of all, it's not hot. Second, no one sees us. And third, we believe combat operations are the most effective at night. Remember my words when we go to war." Quoted in Sergei Medvedko, "A Shield or a Lance? A Report from U.S. Troop Deployment Locations in Saudi Arabia," *Literaturnaia gazeta*, No. 43, October 24, 1990, p. 15.

⁴⁰A. Vasiliyev, "Time Is Running Out," *New Times* (Moscow), No. 45, November 6-12, 1990, pp. 7-9.

⁴¹D. Velikii and B. Ivanov, "The Persian Gulf: Pinning Hopes on the Helsinki Meeting," *Izvestiia*, September 5, 1990.

⁴²TASS political commentator Yuriy Tyssovskii, Radio Moscow domestic service, November 18, 1990. Another radio commentator, declining to quote a firm estimate, likewise foresaw that any attack on Iraq would result in "tremendous casualties" and would "lead to unpredictable consequences worldwide." Sergei Plekhanov, USA and Canada Institute, on the "Top Priority" program, Radio Moscow international service, September 22, 1990.

⁴³This is not to say that the most closely involved Desert Storm planners were that much more sanguine regarding what the ultimate human cost of the war would be. By one account, Secretary Cheney and General Powell were briefed by medical officers at CENTCOM during their visit to Riyadh shortly before Christmas that, "as a worst case planning model," the command was preparing for 20,000 allied casualties, including

There was a predictable spread of forecasts regarding the war's probable outcome. These ranged from the apocalyptic to the perspicacious. On the first count, a Soviet military writer early in the crisis recalled a statement from the former Supreme Allied Commander in Europe, General Bernard Rogers, that the Persian Gulf was the region "where World War III might begin"—although he acknowledged that "this forecast was made under very different conditions from the situation in the nineties."⁴⁴

Closer to the mark was Alexander Bovin's suggestion that "Iraq would suffer a crushing defeat" and would be "routed" were war to break out—although Bovin tempered this by noting that any such accomplishment would come at the cost of "many deaths and much devastation."⁴⁵ The most pointed comment along these lines came from Deputy Foreign Minister Alexander Belonogov shortly before the passage of Resolution 678. Belonogov stated simply that "each wasted week, each wasted day . . . brings Iraq toward the point where a military solution and Iraq's inevitable rout will follow."⁴⁶

KEY THEMES AND OBSERVATIONS

The tone of Soviet comment throughout the Desert Shield buildup was mostly temperate, with little fretfulness or bemoaning the impending fate of Moscow's former client. There were occasional asides that spoke bitterly of Washington's leading role in the preparations to oust Iraq from Kuwait. Partly, no doubt, this reflected a Soviet feeling of helplessness in the situation. There were also occasional episodes of grouching over the loss of a major hard-currency revenue source as a result of Moscow's decision to terminate military aid to Baghdad and to support the U.N.-sanctioned economic embargo against Iraq.⁴⁷ By and large, however, there was little love lost in Moscow for Hussein or support for Iraq's position in the crisis.

about 7,000 troops killed in action. Bob Woodward, *The Commanders*, New York, Simon and Shuster, 1991, p. 349.

⁴⁴Colonel I. Vladimirov, "NATO in the Persian Gulf," *Krasnaia zvezda*, August 15, 1990.

⁴⁵"Kuwait: The Crisis Continues," *Izvestiia*, September 5, 1990.

⁴⁶Interview by D. Velikii, "The Persian Gulf: Three Months to War?" *Izvestiia*, November 17, 1990.

⁴⁷For a more detailed postwar assessment of the direct economic costs incurred by the Soviet Union as a result of the Gulf war, see A. Konoplianik, "The Conflict in the Persian Gulf: Economic Preconditions and Consequences," *Mirovaia ekonomika i mezhdunarodnye otnosheniia*, No. 4, 1991, pp. 81–93.

Support for the *American* role in the crisis, to be sure, was hardly unanimous. At one extreme, some spokesmen sounded almost like cheerleaders for the United States. At the other extreme, there was resentment that the United States stood poised to deal a thrashing to one of Moscow's principal former proteges—armed to the teeth with some of the most modern and capable Soviet conventional weapons. This array of views reflected broader differences between those pleased to see the democratic transformation of the USSR and those wedded to more traditional values, resentful of Moscow's declining influence in world affairs, envious of America's power and seeming ascendancy, and unwilling to accept Moscow's loss of superpower status.

There was also pervasive uneasiness over the possibility that Moscow might become involved in the crisis militarily. Arguments typically voiced against any such move centered on the still-fresh memories of Moscow's abortive experience in Afghanistan. Soviet opposition to joining the coalition as a military player, however, most likely stemmed from a more complex amalgam of factors. These included reluctance to fight a country that, until the preceding August, had been all but an ally; unwillingness to accept the indignity of subordinating Soviet combat formations to an American commander; and uncertainty about how Soviet military performance might compare with that turned in by the American forces and their high-technology weapons. Most of all, the deepening Soviet domestic political and economic crisis rendered any such involvement out of the question for that reason alone.

Soviet pride also played a part in this reluctance, as reflected in Moscow's grudging acknowledgment that American military performance would probably be impressive from a technical standpoint. Many commentators, even those strongly supportive of the coalition, acknowledged that the Kremlin had largely itself to blame for Iraq's military buildup that had led to the crisis in the first place. There were also angry denials that Moscow was providing covert intelligence support to the United States—even though it was clear from the public record that the USSR had made tangible gestures in that direction.

It is important to note who was *not* heard from in Moscow's commentary on the prelude to war. Almost exclusively, Soviet reportage came from journalists and other non-governmental spokesmen. Aside from a few brief remarks from General Lobov and Marshal Akhromeyev, there were no statements from any senior figures in the military or elsewhere in the defense bureaucracy. Perhaps more surprisingly,

there was little comment from civilian defense experts at the research institutes of the Academy of Sciences. One would have thought that these people would have had more to contribute to the debate, even if based only on the prodigious reporting on Desert Shield that was available from the Western press.⁴⁸

Most people in Moscow who seemed willing to characterize the prospects of the unfolding crisis were reporters with known biases. Government and military leaders, by contrast, maintained a Sphinx-like silence beyond the most perfunctory remarks. In no case did a senior officer comment on the vast amount of data that was readily available in the West regarding Desert Shield and alternative war scenarios.

Almost certainly this absence of high-level civilian and military commentary reflected preoccupation with more pressing domestic problems. It also, however, testified to held breaths among the leadership lest the coming war make things worse rather than better for the Soviet future. There seemed little concern about a real military threat to the USSR, notwithstanding the half-hearted rumblings of General Lobov and Marshal Akhromeyev. This was demonstrated most notably by the absence of any major strengthening of forces along the Soviet border with Iraq—although a heightened alert was called in the immediate aftermath of the outbreak of Desert Storm on January 17.

In the end, the Kremlin's low-key stance regarding the coming war seemed to signal an underlying recognition of the stakes for Moscow's future image and credibility. At issue here were the continued relevance of long-standing Soviet doctrinal premises and force planning goals; the correctness of Marshal Ogarkov's predictions a decade earlier about the looming challenge posed by the West's so-called "reconnaissance-strike" weapons; the relative influence of the United States and the USSR in Middle East political affairs; and ultimately Soviet self-respect and long-term prospects as a world power. It would take the success or failure of the coalition's performance in Desert Storm to answer these seminal questions.

⁴⁸For more on the expanded role of these institute analysts, see Benjamin S. Lambeth, "A Generation Too Late: Civilian Analysis and Soviet Military Thinking," in Derek Leebaert and Timothy Dickinson, eds., *Soviet Strategy and the New Military Thinking*, New York, Cambridge University Press, 1992, pp. 217-247.

3. SOVIET REPORTAGE DURING DESERT STORM

Soviet commentary showed little surprise when hostilities broke out on January 17. A week earlier, Marshal Akhromeyev had predicted that an agreement obviating the need for war would be achieved before the January 15 deadline, since Iraq had "understood that its army and state would otherwise be dealt a devastating blow."¹ By the eve of war, however, Akhromeyev had conceded that the United States had "prepared in earnest for a war against Iraq," since decisions to amass the amount of force represented by Desert Shield "are not made with the sole aim of putting pressure on your enemy." Akhromeyev also conceded that "American troops will inflict a defeat on the Iraqi army, inasmuch as they enjoy an overwhelming superiority in air and naval forces."²

Once the war started, it provided a gold mine of technical information for Soviet military intelligence. The Soviets went into a high collection mode immediately after the commencement of combat operations. They were determined to learn as much as they could about how the coalition's weapons and tactics worked and, equally important, about how their own equipment might stand up under the pressure of the allied air campaign.³ According to one account, a Soviet reconnaissance satellite launched on October 16 had been

¹Radio Tallinn domestic service, January 10, 1991.

²"Marshal Akhromeyev on Moscow's Foreign Policy: USSR Favors Global and All-European Security System," interview with *Avanti!* (Rome), January 13-14, 1991, p. 3. In this interview, however, Akhromeyev continued to adhere to his earlier warnings of the likely negative consequences of any such war. Among other things, he noted that "it will jeopardize not only world peace but soon also the economy of every country"; he predicted that "Israel . . . is very likely to join the conflict in one way or another"; and he warned that "if war were to break out, it would be extremely dangerous for the Soviet Union."

³See Bill Gertz, "Soviets Use War to Boost Spying," *Washington Times*, January 21, 1991. See also "War Gives Soviets Unprecedented Chance to Evaluate U.S. Performance," *Aviation Week and Space Technology*, February 18, 1991, p. 46, and Scott Armstrong, "What Moscow and Washington Learned About Each Other in Gulf," *Christian Science Monitor*, March 6, 1991. USAF Brigadier General Lee Downer, the deputy commander of allied air operations conducted out of Turkey, later commented that "the Soviets watched us very carefully with their high-quality collection systems from start to finish. Airborne collectors were as close as international or Soviet airspace would allow." Letter to the author, February 3, 1992.

commanded as early as November to drop to a lower orbit to monitor allied and Iraqi force dispositions in the Gulf.⁴

REACTIONS TO OPENING NIGHT

Soviet responses to the initial results of Desert Storm were dominated by undisguised admiration—and even a belief that continued successes might bring the war to a prompt end with a minimum of casualties. TASS military observer Vladimir Chernyshev noted that “the first phase was carefully planned in advance and skillfully carried out.” He also reported that “the precedence of actions of the branches of the armed forces has been changed. As is known, the ‘classic’ formula gives the main role to land forces in military operations, and the air force support . . . Here, everything has been different. I would say the first blows of strategic, decisive significance were struck by the air forces.”⁵

Other reactions likewise conceded the successes of the coalition’s initial air strikes. Military writer Major R. Mustafin remarked that “the Americans achieved total tactical surprise, as a result of which the Iraqi air defense system was neutralized and the Iraqi air force—approximately 700 aircraft—was reportedly almost totally destroyed on the ground.”⁶ This latter point was a considerable exaggeration of the facts. That it was reported without challenge stands as a compelling testament to the extent to which the opening successes of Desert Storm had captivated Soviet respect.⁷

⁴“Soviet Recon Satellites Image Persian Gulf Area,” *Aviation Week and Space Technology*, November 19, 1990, p. 24.

⁵TASS international service, January 17, 1991. Such a viewpoint was echoed the next day by a correspondent who reported over 1,000 sorties having been flown in the first 14 hours of war, along with over 100 Tomahawk missiles fired, a reported 80 percent of targets destroyed in the first 24 hours, and the Iraqi air force having been “paralyzed” as a result. This reporter added, however, that although the operational and strategic initiative was on the side of the coalition, it was “too early to draw a final conclusion” and that it would be “on the ground that the cost of victory will be determined.” Colonel Vadim Solovev, Radio Moscow international service, January 18, 1991.

⁶Major R. Mustafin, “. . . And Then War Began,” *Krasnaia zvezda*, January 18, 1991.

⁷Another commentator noted how the initial air strikes of the coalition “showed that the use even of conventional weapons can have a destructive force comparable to the force of nuclear weapons.” Captain E. Fedoseyev, “This Was Day One . . .,” *Krasnaia zvezda*, January 19, 1991. This was one of the first Soviet pronouncements to echo explicitly the concern that had long been expressed so vocally by Marshal Ogarkov a decade earlier regarding the growing threat posed by Western precision-strike conventional weaponry.

The first official Soviet reaction to the outbreak of war came from the new Foreign Minister, Alexander Bessmertnykh, in a long and detailed statement. Bessmertnykh began by reviewing Moscow's diplomatic efforts to avert the war that had proceeded vigorously to the very end, albeit without avail. He then gave a balanced account of the opening round of combat. He noted that "Iraq's air defense forces failed to mount any resistance" and that "the presidential palace was completely destroyed." He also said that "no strikes were conducted against residential districts," adding that "our own intelligence confirms this. Overall, these were fairly accurate strikes against targets."⁸

Bessmertnykh reiterated that the USSR still supported U.N. Resolution 678, noting how "it was very important to avoid a precedent in which a large country swallows up another one while bearing no responsibility to the world community." He added that Desert Storm represented "the first time in the history of the 20th century . . . when the world community has unanimously adopted a decision that if the aggressor does not leave, military force will have to be used." This statement set the tone for subsequent Soviet government comment on the war.⁹

The first serious military reaction came in an interview with Lieutenant General V. Gorbachev, dean of the faculty at the General Staff Academy. General Gorbachev acknowledged the "factor of surprise," but went on to say that "this was not . . . the main reason" for the success of the initial attack. "The Iraqi air defense system," he pointed out, "was paralyzed by powerful electronic warfare devices Command and control of troops was overwhelmed in the first few minutes." Summing up the reasons for the coalition's success in the opening hours, General Gorbachev cited the marshalling of "a powerful grouping in a short space of time" and "highly efficient intelligence" as evidence of a "high degree of professionalism" underlying the coalition's efforts.¹⁰

⁸Statement to an emergency session of the USSR Supreme Soviet Presidium, Moscow central television, Second Program Network, January 17, 1991.

⁹Bessmertnykh was among the first to telegraph Soviet sensitivity to the poor showing of Soviet weaponry in Iraqi hands when he stated that "the fact that certain installations in Iraq were hit is not a reflection of the weakness of combat equipment, since ultimately equipment is only good when it is in good hands."

¹⁰Interview by N. Burbyga with Lieutenant General V. Gorbachev, "... Tanks Will Not Save the Day: A Soviet Military Expert Analyzes the Progress of Combat Operations in the Persian Gulf Region," *Izvestiia*, January 21, 1991. Asked whether the poor showing of Iraq would "discredit our equipment in the foreign public's eyes," Gorbachev offered the emerging Soviet line on this issue: "As far as Soviet equipment

Asked about possible weaknesses in the coalition's military posture, General Gorbachev replied that any "shortcomings will show up later on if the war becomes protracted." He cited as one potential problem the extent and vulnerability of the coalition's lines of communication. Nevertheless, he granted that "the war's outcome has . . . been determined by the fact that the allies seized the initiative and won air superiority from the outset." As a result, he said, Hussein had "lost his chance" and only could have forestalled disaster had he mounted "a preemptive attack against the coalition."¹¹

Another high-ranking officer conceded the coalition's attainment of "total air superiority" in the opening hours of the war, attributing this to the "surprise factor" which had enabled the United States "almost completely to take out Iraq's air defense system and command and control system." This commentator, Major General Georgiy Zhivitsa of the General Staff's Center for Operational and Strategic Research (and now chief of the Ukrainian General Staff), noted that the allies had achieved "substantial military results" while sustaining "minimal losses," testifying to "their very high level of readiness."

General Zhivitsa ascribed this not only to the "effectiveness of the comprehensive use of air- and ground-based electronic countermeasures," but also to the "thoroughness of the Americans' information on specific Iraqi weapons." He had complimentary words for the more than two months of "organizational and technical measures and special exercises [that had been conducted by coalition fighter units] at test ranges in Britain, the FRG, and France."¹² At least one Soviet source further noted that Germany had made available its MiG-29s

is concerned, it is not so much a problem, I think, as the people operating it. Iraqi military professionalism is not, as we can see, up to the mark."

¹¹General Gorbachev further noted that the 400 U.S. Apache helicopters alone would be able to nullify Hussein's tank advantage and said that "having no opposition in the air, the coalition will be able to carry out its task one way or another." He voiced disbelief at reports that Soviet attachés had supplied the Americans with information about Iraqi capabilities, saying that "Iraq was a friendly country" to the USSR. Beyond that, he noted that "there has been no need for this," since "technical intelligence and highly accurate U.S. weapons have played the decisive role here."

¹²Interview by I. Litovkin with Major General G. Zhivitsa, "How Professionals Wage War: A Soviet Military Expert Analyzes the Course of Hostilities in the Persian Gulf Region," *Izvestiia*, January 19, 1991. General Zhivitsa also credited last-minute modifications to coalition weapons, mainly those "designed for use against anti-aircraft missile complexes," as a result of these testing exercises and spoke of adjustments and reprogramming in selected systems, "taking into account the latest information from radio and electronic intelligence in the region." He erroneously claimed that Iraq had shot down a USAF F-117.

for air-to-air training workups against allied fighter pilots preparing to deploy to the Gulf for possible air combat against Iraqi MiG-29s.¹³

By the end of the first week, Soviet reporting generally mirrored that of the Western media in its tendency to treat the war as a sort of high-technology Super Bowl event. By then, the initial bedazzlement had yielded to a more critical "why hasn't it been won yet?" line of questioning, as the air campaign settled into a steady-state exercise of systematically destroying Iraq's strategic infrastructure. At this point, Soviet commentary began carping at the allied air performance, almost studiously looking for things to complain about. One interviewee, for example, complimented the coalition for "winning complete air superiority," but then added that "our military is . . . warning against overestimating the initial successes."¹⁴

COMMENTS ON THE AIR CAMPAIGN

By January 23, it had become clear that the air war had not yet achieved decisive results. The second week of Desert Storm encountered uncharacteristically bad weather over much of Iraq, resulting in a substantial drop in the daily number of combat sorties flown. This slowdown gave Soviet commentators another occasion to probe for faults. A TASS correspondent noted how the war had taken "an increasingly dangerous turn" and had begun producing "considerable human casualties." This account cited "Western experts" as having reported over 300,000 Iraqi fatalities.¹⁵

Marshal Akhromeyev also joined this attempt to rain on the coalition's parade, predicting that the Gulf war would be "fairly protracted," since an army like Iraq's, with nine years of combat experience against Iran, "cannot be paralyzed only with air attacks."¹⁶ He

¹³N. Novichkov, "The Preparation of Multinational Force Aircrews for Operation Desert Storm," *Zarubezhnoe voennoe obozrenie*, No. 7, July 1991, p. 35. See also Heinz Schulte, "MiG-29 Radar 'Is U.S. Design,'" *Jane's Defense Weekly*, December 1, 1990, p. 1066.

¹⁴Interview with V. Pasko, Radio Moscow domestic service, January 19, 1991.

¹⁵Comment by Yuriy Tyssovskii, TASS international service, January 23, 1991.

¹⁶Interview with *Neues Deutschland*, reported by ADN (Berlin), January 22, 1991. In a related effort to squelch good news, another Soviet general was reported to have rejected U.S. claims of weapons effectiveness in the initial strikes, stating that a full 90 percent of coalition attacks had missed their targets. This statement added that "Iraqi air bases are well camouflaged and extremely hard to locate" and maintained that having lost five aircraft, the allies had been forced to change their tactics. The general further insisted that "saying bad weather was the reason the planes were grounded was only a pretext. In fact, they were planning a change of tactics." Communiqué by

complained that the United States had rushed into war and had failed to give peace a chance. Akhromeyev also sought to distance the Soviet government from the American decision to initiate Desert Storm, even though he was quick to grant that Moscow's political support during the prewar buildup had been a "true test" of the improved Soviet-American relationship.¹⁷

During week two of the air campaign, Soviet commentary divided between those who remained impressed by the coalition's performance and those who clearly were looking for things to pick apart. On the one hand, TASS reported that there was "no denying that the achievements of the multilateral forces are impressive, owing mainly to the newest weapons which are at the disposal of the U.S. military contingent and which, in some cases, are being tested in combat for the first time."¹⁸ A related comment spoke of the excitement that had been generated by watching video replays of fighter cockpit displays "as pilots use laser-guided devices to deliver individual bombs from a great altitude right on the Defense Ministry or through the gates of a missile hangar." This report conceded victory to coalition air power almost from the start, observing that "nobody wants to be a latecomer at the winners' party."¹⁹

AFP, January 22, 1991. A similar example was the comment by *Izvestiia* that even though a reported 80 percent of the U.S. Navy's Tomahawk missiles had landed on target, Iraq was "beginning to give appreciable resistance" and "its fighter aircraft were operating." "The Second Day of the War," *Izvestiia*, January 19, 1991.

¹⁷ Esther B. Fein, "Senior Soviet Officer Says U.S. Rushed into War," *New York Times*, January 22, 1991.

¹⁸ Comment by Yuriy Tyssovskii, TASS international service, January 22, 1991. This reporter also granted that initial claims of 50-80 percent of Iraq's aircraft having been destroyed on the ground were manifestations of a popular euphoria that had *not* infected the coalition's leaders. It added, correctly, that U.S. intelligence had underestimated the possibility of a secret deployment of Scud missiles and said that "Iraq's military potential is far from being destroyed." It further noted an unusually high rate of RAF Tornado losses as a result of their performing "especially dangerous low-altitude bombing missions." This last point was a playback of exaggerated reporting in the Western press. Out of 1,500 combat sorties flown, the RAF suffered six Tornado GR1 losses, three of which went down during the first three days while conducting low-altitude airfield attacks at night. One of those losses occurred on a JP233 runway-cratering mission after the aircraft had successfully hit its target. See Alfred Price, "Tornado Storm," *Flight International*, October 23-29, 1991, pp. 42-43.

¹⁹ V. Nadein, "The Morning After the Start of the War," *Izvestiia*, January 23, 1991. This report also chided predictions made by members of the Brookings Institution, based on "hundreds of scenarios run on computer models," which confidently stated that there "should have" been 129 allied aircraft shot down in the first three and a half days of war. The report correctly noted that the actual number had been only a tenth of that. It also predicted that forecasts from the same analysts that there would be 10,000 coalition troops killed and 35,000 wounded would also undoubtedly be "corrected—and downgraded—by reality."

On the other hand, there was skepticism about the more extravagant reports of coalition air accomplishments. The respected newspaper *Nezavisimaia gazeta*, for example, reported that although "there is no doubt that Iraq is going to be defeated in this conflict," many of the initial reports about the destruction of the entire Iraqi air force and about the total paralysis of Iraq's air defenses had proven to be "groundless."²⁰

A side issue that briefly surfaced during the first week concerned whether Moscow had fulfilled its early promise to withdraw its military advisers from Iraq along with its avowed cessation of military assistance. Soviet spokesmen denied, in some cases heatedly, that the USSR was continuing to provide military aid to Iraq in the face of recurrent Western allegations to the contrary.²¹ Secretary Cheney stated that he had no evidence to support any accusation of clandestine Soviet military assistance.²² Perhaps there were isolated or rogue cases in which individual Soviet advisers stayed on or were bribed to help the Iraqis. But these could not have made much difference as far as the overall conduct of the war was concerned.²³ Even had they created problems at the margins for the coalition, the United States would have had little incentive to force a Soviet-American bilateral issue at a time when there were more pressing concerns on the table—and when declared Soviet policy was not to interfere with the coalition's operations.²⁴

²⁰Alexander Smirnov in *Nezavisimaia gazeta*, reported on Radio Moscow international service, January 27, 1991.

²¹See Bill Gertz, "Soviets Aiding Iraqis," *Washington Times*, January 25, 1991, and "Soviets Giving Aid to Iraqis, U.S. Says," *Washington Times*, February 4, 1991.

²²See Bill Gertz, "Can't Confirm Soviets Helping Iraq—Cheney," *Washington Times*, January 28, 1991.

²³One officer expressly made this point in denying any Soviet technical assistance to the Iraqi armed forces. Letter from the Novosti Information Agency by Colonel Valery Pogrebnikov, "Soviets Wouldn't Profit By Helping Iraq," *Washington Times*, February 7, 1991.

²⁴By no means, however, did the United States look upon these reports with benign indifference. Early during Desert Shield, Secretary Cheney stated that in the event war came, the United States would carry out strategic attacks against high-value Iraqi targets "regardless of what the status might be of various advisers who may or may not be present." Quoted in Patrick E. Tyler and Dan Morgan, "Pentagon Says It Would Attack Iraq Without Regard to Soviet Advisers," *Washington Post*, September 12, 1991. There was also a report after the war alleging that the Special Forces had been given a mandate to capture and extract any known Soviet advisers that might be encountered during covert ground operations in Iraq. See Juan J. Walte, "U.S. Tried to Nab Soviets Aiding Iraq," *USA Today*, March 19, 1991. Although it was rumored that the U.S. government had firm evidence of Soviet soldiers fighting alongside the Iraqis, no Soviets were captured in any such operations. See Jack Anderson and Dale Van Atta, "Soviets May Have Aided Iraq in Crisis," *Washington Post*, May 20, 1991.

By the end of week two, the commander in chief of the Soviet air force, then-Colonel General Yevgeniy Shaposhnikov, offered an initial assessment of the war's progress. Consistent with his previous track record, this interview was notable for its objectivity and even-handedness.²⁵ General Shaposhnikov stated that he and his staff were "following the . . . situation attentively, evaluating it from various viewpoints. As military men, we are interested in everything associated with the use of the latest aviation hardware under actual combat conditions and on such an unprecedented scale."²⁶ He added that information on the coalition's performance was being systematically collected, and he indicated that from this "we will, in time, . . . be able to draw substantiated conclusions on the new means and methods of combat."

General Shaposhnikov acknowledged that the coalition's gains during the first days had been part of a "major offensive air operation" aimed at "knocking out the other side's aircraft, control centers, surface-to-surface missile launchers, and air defense facilities and, to a certain extent, undermining Iraq's economic potential." He added that by all indications, "the operation was carefully planned, organized, and executed. Good cooperation was noted among the involved forces and facilities, especially with electronic warfare equipment." He qualified this, however, by noting that although "initial reports might have left the impression that the operation's aims had largely been achieved, . . . a somewhat different picture is now emerging In short, the result has proven not quite to be the one on which the allies were reckoning."

General Shaposhnikov did not emulate the tendency of others to snipe at the coalition's performance. He did, though, note that "the intensity of coalition air operations [had] diminished somewhat." He wrongly attributed this to shortages in "material and technical supplies" and "fuel and munitions," but then accurately acknowledged "real problems" connected with local weather over many target areas, where "a zone of low cloud cover . . . hampers [air-to-ground] missile employment and bombing."

²⁵For more on that background, see Tony Capaccio, "RAND Review Depicts Progressive New Soviet Defense Minister," *Defense Week*, September 9, 1991; David Evans, "Defense Chief First of New Breed," *Chicago Tribune*, August 29, 1991; and Barbara Starr, "Shaposhnikov Reorganizes," *Jane's Defense Weekly*, September 7, 1991.

²⁶Interview by Captain S. Sidorov, "In the Skies Over Iraq," *Krasnaia zvezda*, January 25, 1991.

As for the status of the Iraqi air force, General Shaposhnikov conceded that "a certain part of it was destroyed in the initial raids." He said the part that had survived the first round of fighting was "not yet being extensively used." He speculated that it was being "kept in reserve for strikes being planned against coalition ground forces and to cover the combat formations of their own troops should large-scale ground operations occur."

General Shaposhnikov offered no judgments regarding the aggregate performance of allied air operations. He also correctly foresaw that air strikes in the immediate days ahead would focus mainly on hunting down Iraqi Scud missiles so as to keep Israel out of the war, after which the locus of air operations would shift from strategic targets in Iraq's rear to defensive fortifications and troop concentrations in the Kuwaiti Theater of Operations (KTO).

A less accommodating account was offered by Colonel Manki Ponomarev, a military writer for the Defense Ministry's daily paper, who alleged that the allies were trying to validate, through the application of modern technology, the decades-old theory of Giulio Douhet about the dominance of air power. Colonel Ponomarev alleged that this theory, which had failed to gain support either in World War II or in Korea or Vietnam, appeared "very attractive to many prominent military figures in the West today" who believe that modern weaponry now "makes it possible with air strikes to, if not conclusively crush the enemy, then at least inflict on him a decisive defeat."²⁷

Colonel Ponomarev then noted that such "decisive success in the course of the aerial blitzkrieg had not been achieved." He did admit, though, that CENTCOM had succeeded "to a certain extent" in achieving operational-tactical surprise. As a second factor underlying the initial successes of the air campaign, he cited American electronic warfare capabilities and precision conventional weapons, which had "seriously hampered the operations of Iraq's air defenses, aircraft, and command and communications system."

²⁷Colonel M. Ponomarev, "The Picture Begins to Clear," *Krasnaia zvezda*, January 25, 1991. This argument, apart from being wrong with respect to Korea and Vietnam, grossly misconstrued the air power theory of Douhet, which held that "the primary objectives of aerial attack should not be military installations, but industries and centers of population remote from the contact of the surface armies." Edward Warner, "Douhet, Mitchell, Seversky: Theories of Air Warfare," in Edward Meade Earle, ed., *Makers of Modern Strategy*, Princeton, Princeton University Press, 1944, p. 490.

As a third factor, Ponomarev cited "certain blunders of the Iraqi command," notably its misplaced reliance on its experience from the Iran-Iraq war, which "did it a poor service and engendered smugness and complacency." He also acknowledged that Baghdad's claim to having won the first round was an exaggeration, since Iraq had "no way to change the overall picture. Allied superiority in the air and at sea—even given approximate equivalence on land—speaks for itself."

A more informed reflection on the war's progress came at the end of January from the chief of the General Staff's Center for Operational and Strategic Research, Major General S. Bogdanov. In an interview in *Krasnaia zvezda*, General Bogdanov said the coalition's potential "markedly exceeded" that of Iraq, but that Iraq's resources should "not be underestimated." In particular, he cited Iraq's French-made Exocet antiship missiles and its chemical and biological weapons. Because of these and other factors, he said, it would be unwise to "predict, without reservation, an inevitable defeat for Iraq, based on analysis of only the first days of combat operations."²⁸

General Bogdanov noted erroneously that claims of American weapons superiority were being advanced largely on the basis of the Patriot missile's apparent intercept successes against the Scud. He also said, correctly, that no generalizations could be drawn regarding the performance of Soviet-made tanks, since there had been no reported cases of armored combat. In the end, he propounded what soon became a recurrent Soviet refrain that "in any war, the outcome is determined not so much by technology as by the people who control it."

SIGNS OF GROWING NEGATIVISM TOWARD THE AIR WAR

Soviet reactions to the continued progress of the air campaign tended to fall into three categories—the defensive, the critical, and the grudging. The first was typified by Stanislav Kondrashov, who found Soviet reportage on the Gulf war "often indistinguishable from American coverage." Citing the absence of much treatment of the alleged ravages of the war, he complained: "They do not show the blood, death, and ruins down there in somebody else's country and in somebody else's sky. They only show after-action bulletins with pilots

²⁸Interview by Lieutenant Colonel V. Nikanorov with Major General S. Bogdanov. "The General Staff Is Closely Monitoring the Developing Situation." *Krasnaia zvezda*, January 31, 1991.

wearing nice flying suits."²⁹ Kondrashov singled out an article in *Nezavisimaia gazeta* which had called for "a swift and unconditional American victory." Citing it as a case in point, he said: "I am embarrassed . . . by these hymns to the American war machine" and "by the swipes the author takes at everything Soviet." He also rejected comparisons of the Gulf situation with Soviet military effectiveness vis-à-vis NATO and showed special irritation at the intimation by some Russians that the Soviet armed forces would have fared as poorly in a war in Europe as Hussein's troops were faring against the coalition.³⁰

The most openly anti-American reportage came from General V. Filatov, the editor of *Voenno-istoricheskii zhurnal* and a notorious hardliner who was later fired in the wake of the abortive August 1991 coup. Filatov set off for Baghdad not long after Desert Storm commenced and wrote confidently from the Iraqi capital that "the Gulf war will end in a major U.S. defeat." In an effort to rationalize Iraq's immobilism in the face of coalition air power, Filatov proposed that Baghdad "had no intention of fighting the Americans either in the air or on the water" but "would surface . . . once the first U.S. soldier steps onto Iraqi soil." He depicted the United States as moving toward its "second Vietnam," the outcome of which would be "somewhat worse for it than the first." Speculating that the United States would lose many allies as a result of its intervention, Filatov suggested that Moscow's "chances of acquiring new friends in the Arab world are now preferable to those of any other world superpower."³¹

Much of the reporting from Moscow simply begrudged the coalition's performance, either doubting that things could be as rosy as they appeared or ruing the fact that it was the United States and not the Soviet Union that was acting like a superpower. An article in

²⁹Stanislav Kondrashov, "You Can't Stand Tall Without Dignity," *Izvestia*, January 28, 1991.

³⁰The offending quote in question read as follows: "The indestructible Red Army, made up by and large of unprofessional officers and semitrained conscripts, could hardly manage to put up sustained resistance against the professional NATO armies and modern, highly accurate superweaponry. Such a clash between brute force and reason, a bullfight in essence, would end, like all bullfights, with the moment of truth."

³¹Interview by A. Kokhlov with Major General V. Filatov. "The War in the Gulf Has Not Yet Begun . . .," *Komsomolskaia pravda*, February 1, 1991. Filatov's vain suggestion that Hussein was waiting for the the ground war to show his stuff was reminiscent of a joke that had circulated after the 1973 Middle East war, which portrayed the Egyptian chief of staff explaining to his much-displeased patrons in Moscow how he had followed to the letter Soviet military practice from the Battle of Stalingrad in retreating across Sinai and was "still waiting for the long Russian winter to set in."

Literaturnaia gazeta, for example, proposed that Iraq's "surprisingly feeble resistance" was actually evidence of "a tactical or even strategic plan," through which Hussein was waiting for the coalition's ground attack to "reveal all of his trump cards."³² In a related vein, the Defense Ministry's daily paper sought to disparage the fighting spirit of allied forces by citing an alleged interview with an American fighter pilot, who was reported to have said that "what I see here is particularly dreadful and brutal Each time I get into my aircraft cockpit, I experience the fear of being shot down by the Iraqis Our morale is reaching rock bottom. I would like nothing better than to chuck all of this."³³

The commander in chief of the Warsaw Pact, General Lobov, joined these critics in suggesting that the military assets that had thus far figured in the air war had "not been critical to the fate of either side." Lobov admitted that "air forces and missiles might prove decisive in the Gulf," but he insisted that "only when ground forces are committed can a conclusion be drawn."³⁴ The commander of the surface-to-air missile branch of PVO likewise noted that the first "highly optimistic" forecasts about the effectiveness of air power were being forced to yield to a "more cautious estimate." This general suggested that Baghdad's air defenses had prevented the coalition's air forces from achieving a quick success. He also maintained that it would prove impossible for the allies to force Iraq out of Kuwait "using aviation alone."³⁵

Some spokesmen aired guarded hopes that Iraq's shelter-hardening measures would compound the coalition's problem of destroying Iraqi aircraft on the ground. A Soviet pilot who had flown in Egypt during the 1970 War of Attrition suggested that the nonappearance of the Iraqi air force in combat was the result of a conscious husbanding strategy, and not a reflection of effective allied suppression or any fear of Iraqi fighter pilots to fly. He also noted from his experiences in Egypt "how skillfully the Arabs had fitted out blast walls for their

³²Sergei Medvedko, "He Will Not Spare His Own People," *Literaturnaia gazeta*, No. 4, January 30, 1991, p. 1. Conversely, the article suggested that Hussein hoped to "avoid open battles for as long as possible, so as to hold out until spring when the heat will prevent active offensive operations."

³³"Our Morale Is Reaching Rock Bottom: A U.S. Airman's Unexpected Revelations," *Krasnaia zvezda*, February 1, 1991.

³⁴Interview with General Vladimir Lobov, Radio Moscow international service, February 1, 1991.

³⁵Interview by Sergei Kozlov with Colonel General Igor Maltsev, Radio Moscow international service, February 6, 1991.

aircraft." He offered this as the reason why he did not "totally believe all Western news reports" about Iraqi aircraft having been destroyed in their shelters.³⁶

A department head at the General Staff Academy offered a more circumspect reaction, acknowledging that although the coalition's "blitzkrieg" had not succeeded, it had shown that "electronic warfare equipment is . . . the technical basis of modern combat" and that the Americans "were able to use electronic warfare quite skillfully" to "blind and deafen the enemy."³⁷ This officer conceded that Hussein knew his weaknesses and had wisely refrained from going "all out" at the onset of hostilities because "he would lose everything he had on the very first day." The general praised this non-response as a "correct tactic" to draw the coalition into a prolonged ground campaign in which Hussein would command a comparative advantage.³⁸

As the air campaign moved from deep infrastructure attacks to a non-stop pounding of the Republican Guards, Soviet observers were forced to concede that the allies "continued to hold the strategic initiative that they had seized during the first days of the war."³⁹ There was also, as in the West, some perplexity about the flight of Iraq's air force to Iran and uncertainty as to whether this symbolized "a massive defection by Iraqi pilots" or the "product of a secret agreement . . . between Baghdad and Teheran." An indication of underlying belief, however, may have been Moscow's acceptance of an official Iranian statement that "all Iraqi pilots who flew into Iran are considered prisoners of war and will not be able to take part in combat operations."

³⁶Colonel V. Demidenko, "A Specialist Comments on a *Komsomolskaia pravda* Correspondent's 'Tunnel View' of the Quality of Soviet Military Hardware," *Krasnaia zvezda*, February 6, 1991. This writer also claimed that "even an average pilot in a MiG-29 has a better chance of winning a dogfight than his adversary in an F-15, not to mention other aircraft." This assertion was an odd counterpoint to the widespread jokes among coalition pilots after the first days of the war about how the Iraqi air force had a departure control but no approach control and how the three most fearsome words to an Iraqi fighter pilot were: "Cleared for takeoff."

³⁷Interview by N. Burbyga with Major General N. Kostin, "A Ground War Is Inevitable," *Izvestiia*, February 8, 1991.

³⁸A related comment suggested that "during the first days, the Iraqis simply did not switch on many radars in order to save missile installations for the future." Andrei Balebanov, "The Knot of Military Conflict Tightens," *Selskaia zhizn*, January 29, 1991. A more likely explanation is that the Iraqis did not activate their search and tracking radars after the first day of Desert Storm out of a clear awareness that by so doing, they would expose themselves to allied antiradiation missiles.

³⁹Major R. Mustafin, "The Third Week of the War," *Krasnaia zvezda*, February 2, 1991.

LOOKING TO THE ENDGAME

As the war progressed into mid-February, a guessing game unfolded in connection with when and how Desert Storm would proceed to the terminal phase. One press account reported Secretary Cheney's and General Powell's journey to Riyadh for a first-hand update on the war's progress. It offered as a foregone conclusion that "their recommendations will come down to switching to a ground offensive." This left open the questions, the article added, of when and where. It also raised a question whether the allies intended "to attack only Iraqi troop lines in Kuwait," or whether "the territory of Iraq itself will also be subject to invasion."⁴⁰

On this score, Soviet commentators were no less in the dark than their Western media counterparts. One general wrote that it would be "practically impossible" for the coalition to get Iraq out of Kuwait "using air attacks alone." The general added that in the course of commencing ground operations, the coalition's commanders "will conduct amphibious operations as well."⁴¹ After a brief discourse on the history of amphibious operations in previous wars, he suggested that many tactical aspects of those cases would "probably . . . be used . . . in possible amphibious operations in the Persian Gulf."

Related guessing over next moves saw contrasts between those on the side of the coalition and those who chose to bemoan the role being played by the United States and its partners. On the first count,

⁴⁰V. Nadein, "Only Two Questions: When and Where?" *Izvestia*, February 12, 1991.

⁴¹Lieutenant General I. Skuratov, "D-Day, February '91: What Will the Amphibious Landing in the Persian Gulf Be Like?" *Krasnaia zvezda*, February 12, 1991. Another commentator a week later was even more confident on this point: "A successful landing by U.S. Marines is believed to be a key element ensuring the positive outcome of the assault. It is expected that this will be the largest amphibious operation since the allied troops landed in Normandy in 1944." Colonel V. Nazarenko, "The Ground Campaign," *Sovetskaia Rossiya*, February 19, 1991. In an apparent attempt once the war was over to cover his failed prediction earlier in February that an attack over the beach would constitute a major element of CENTCOM's ground campaign, General Skuratov dismissed what he called the easy explanation that "a likely cause [was] the absence of an operational requirement for carrying out a major amphibious assault." Instead, he sought the answer in an argument that ignored General Norman Schwarzkopf's postwar assertion that his threatened amphibious assault had been an intended deception all along: "Analysis of past wars indicates that the U.S. Marines look with disfavor on a strongly fortified coast The Kuwaiti coast probably did not permit the Americans to expect a lightning-fast assault at minimum losses, something that had been the case in Grenada and Panama. We see here the major cause that frustrated the execution of the 'Desert Sword' plans." Lieutenant General I. Skuratov, "Why Did the 'Desert Sword' Remain Sheathed?" *Krasnaia zvezda*, May 7, 1991.

Komsomolskaia pravda scored Iraq's propaganda about alleged non-combatant casualties caused by coalition bombing and came to a surprisingly strong defense of the coalition. This report noted how Hussein had allowed journalists to "witness the destruction of Iraqi cities and the casualties among the civilian populace," adding wryly that the world was "hardly ever likely to see any photographs of dying Kuwaiti children, torture victims, or the execution of Kuwaitis."⁴² As a corrective, the article cited a French reporter who had been treated to a close look at coalition bomb damage in urban areas. It quoted him as saying: "I was surprised by the accuracy of the allied bombing of military and strategic targets in the cities. Talk about an apocalyptic situation there is an obvious exaggeration."

Mounting complaints over the coalition's achievements were heard from other quarters, however, once the countdown to victory had begun. One story took umbrage at how so many Soviet newspapers seemed to be, "for all intents and purposes, competing in their declarations of devotion to U.S. interests."⁴³ It added that even apart from questions of ideology and conscience, "we would not discover any basis for the Soviet Union's embrace of U.S. interests in the Persian Gulf," since "America went to war in the Gulf for its own selfish reasons." Key among Washington's ostensible motivations was the fact that the former Soviet "enemy" had "disappeared," leaving America's defense industry in need of a new excuse to justify its existence.

The right-wing *Sovetskaia Rossiya* condemned those Soviet officials who were said to be "surrendering one position after another for the sake of some mythical 'priority of general human values.'"⁴⁴ *Krasnaia zvezda* likewise faulted Sergei Blagovolin of the Institute of World Economy and International Relations for having proposed a Soviet-American military cooperation arrangement to contain "future regional conflicts and the emergence of new centers of military might." It did so on the asserted grounds that the net result of any such arrangement would be "to serve U.S. interests" rather than to "guarantee our security."⁴⁵

⁴²V. Shumilin, "Reporters Go Into Combat," *Komsomolskaia pravda*, February 13, 1991.

⁴³Nadein, *Izvestiia*, February 12, 1991.

⁴⁴Sergei Ozhigin, "There Is Nothing More Terrible Than War," *Sovetskaia Rossiya*, February 21, 1991.

⁴⁵Ye. Gudkov, "Are They the Right Guarantees?" *Krasnaia zvezda*, February 20, 1991. Earlier, at the beginning of the war, Blagovolin had urged that Israel stay out of the fighting so as to allow "the United States and other countries . . . to complete the

In the same spirit, Radio Moscow intoned darkly that since ground operations had begun, allied casualties would soon add up to "thousands."⁴⁶ And TASS lamented that the coalition was taking unfair advantage of Iraq's incapacity to evacuate its troops from the KTO and was "simply itching for the moment when they would be given a chance to 'put the squeeze on' the Iraqis and force them to surrender with all their weapons to the mercy of their conquerors." At bottom, this criticism faulted the allies for little more than planning cleverly and fighting well.⁴⁷

EARLY REACTIONS TO THE ALLIED VICTORY

After a four-day ground campaign, Operation Desert Storm was over. Defense Minister Yazov, who had kept silent throughout the six weeks of fighting, noted simply that "once ground operations began, they rendered Saddam's defeat inevitable."⁴⁸ Marshal Akhromeyev showed some sympathy for the problem the coalition's leaders faced. When pressed as to whether the United States had overstepped its mandate as authorized by U.N. Resolution 678, Akhromeyev replied: "Look, there are varying degrees of overstepping, because war is war and in a war you can't measure things in inches or pounds." He said that "an overstepping has definitely occurred, but I do not know whether it was deliberate. It is a result of the rationale of war. But if something very different [i.e., a coalition march into Baghdad] occurs, then there will be a clear violation."⁴⁹

Much as in its earlier commentary during Desert Shield, the Soviet media took a low-key approach to reporting operational developments. Few senior officials, either military or civilian, were publicly heard from. Those who did comment usually did so because their positions made them obvious spokesmen at pivotal moments in the war (Foreign Minister Bessmertnykh when hostilities commenced; General Shaposhnikov once the air campaign had achieved its initial results; and Defense Minister Yazov when the war had neared an end and the outcome was foreordained). Otherwise, the military's commentators mainly comprised designated spokesmen from the General Staff's Center for Operational and Strategic Research and military

military operation against Iraq." Report by Mikhail Ivanov, TASS international service, January 18, 1991.

⁴⁶Report by Lev Sichayev, Radio Moscow international service, February 24, 1991.

⁴⁷Report by Askold Biryuko, TASS international service, February 24, 1991.

⁴⁸Radio Moscow international service, February 26, 1991.

⁴⁹Interview by Sergio Sergi, *L'Unita* (Milan), February 28, 1991.

journalists with no access to inside information or special analytic credentials.

Unlike Soviet reportage during earlier wars, when censorship prevailed and little detail was made available, media coverage this time was straightforward and unconstrained. Thanks to *glasnost*, Soviet audiences had the benefit not only of comprehensive domestic reporting, but also of access to CNN, which rendered any effort at intentional distortion extremely difficult. One could have assembled a fairly accurate picture of Desert Storm solely from materials in the Soviet press.

Surprisingly, there was little effort in this reportage to highlight the implications of the Gulf war for Soviet security beyond recurrent expressions of unease over the poor showing of Soviet weaponry. There was nary a hint of comment from the High Command on the subject of relevant "lessons" from the war until the guns had fallen quiet and the smoke of battle had cleared.

One article nicely summarized the dynamic that mattered most as the war ground to a halt. A Soviet colonel remarked that Desert Storm had established itself as "the largest combat operation since World War II." He added that the coalition character of the war had required "a high degree of interaction" which took due account of "the political nature of the involvement of each of the coalition members."⁵⁰ The colonel then noted how Iraq had repeatedly sought, without avail, to drag the coalition into a "great land campaign" before "the air forces of the allies could destroy the Iraqi military infrastructure." Acknowledging that this "did not fit into the calculations of the coalition," he described how repeated coalition air attacks had deprived Iraq's forces in the KTO of any mobility, forcing them into a "static posture." This, he said, made inevitable the "methodical destruction of Iraq's military machine."

⁵⁰Colonel D. Belskii, "Liberation or Aggression," *Sovetskaia Rossiya*, February 28, 1991.

4. INITIAL REFLECTIONS ON THE WAR EXPERIENCE

It was not until after the war had ended that most Soviets appeared willing to venture beyond straightforward reportage toward more reflective analysis and commentary. Some spokesmen who had been diffident during the war now seemed more ready to speak confidently with the benefit of hindsight. Alexander Bovin, for example, remarked that Iraq had been defeated "as expected."¹ Another reporter likewise pronounced that "the fatal outcome for Iraq was predetermined."² In his view, the war represented a watershed event in which "two eras, two centuries—the past and the future, with its fantastic technological superiority—collided head on."

This writer had quiet praise for the United States, whose leaders were said to have been admirably "short on words," unlike their "clamorous" enemy in Baghdad. He remarked that the Iraqi army, often classed as the fourth largest in the world, had been "clearly overrated." He further explained that this overdrawn assessment had been based solely on the Iraqi military's numerical strength and combat experience against Iran. Such assessments, he said, overlooked the noncomparability between the Iran-Iraq war and Baghdad's later showdown with the coalition: "In the first instance, it was a case of trench warfare with total Iraqi air superiority. In the second instance, Iraq was in Iran's situation."

A somewhat different slant on the war's import was offered by civilian analyst Andrei Kortunov, who spoke as well of the "inevitability" of Hussein's defeat.³ Kortunov portrayed the crisis as a capstone event marking the end of the Cold War, in which the former "main contradiction of the epoch"—the East-West ideological confrontation—had been replaced by "an emergence of others—between North and South, between traditional values and the technocratic civilization." For the Soviet Union, he noted, the only reason the Gulf crisis was a "less dramatic event than for the United States" was because there had

¹Alexander Bovin, "Strategy and Tactics," *Izvestiia*, March 7, 1991. To his credit, Bovin was closer to the mark than many, having indicated as early as September 5 that Iraq's defeat in case of war was "all but inevitable."

²Yuriy Glukhov, "A Fragment of the Mirror of a Major War," *Pravda*, March 8, 1991.

³Andrei Kortunov, "Desert Storm," *Novoye vremya*, No. 4, January 1991, pp. 20–22.

been no direct Soviet involvement and "because the international crisis was pushed into the background by the crisis within the country."

That notwithstanding, Kortunov maintained that there was an abiding lesson in the Gulf experience for the Kremlin. He pointed out that "the greatest number of likely candidates for the role of Saddam Hussein in future conflicts is to be found among traditional Soviet partners." In effect, Kortunov argued, continued Soviet cooperation with these "traditional partners" should be made "directly contingent on their ability to accommodate to the realities of our modern world—the end of the Cold War and the age of wars of national liberation; the economic ineffectiveness of the command-administrative [i.e., autocratic] system; and the universal nature of fundamental human rights." These required, said Kortunov, a major change in the global orientation of the Soviet Union. Fortunately, he noted, this should be eased by "the growing pluralization of foreign policy consciousness in the country."

Another theme in Soviet postwar commentary concerned the implications of Desert Storm for Soviet-American relations. A *Pravda* commentator noted how "200 days of diplomatic efforts, followed by military action, showed that constructive relations between the USSR and the United States . . . take on special importance in international crises." He spoke approvingly of the way the presidents of the two countries had shown how they were able to discuss "the most acute and urgent problems in a businesslike and confidential manner." As affirmed by the Gulf experience, he concluded, "Soviet-American relations have stood the test."⁴

Just to indicate one silent example of this new cooperativeness in practice, the Soviet High Command must have had reconnaissance satellite information on how General Schwarzkopf was redeploying allied ground units in Saudi Arabia toward the end of the war to execute his famous "left hook." By all outward signs, the Soviets did not convey this critical information to the Iraqis. Their restraint in that regard definitely worked to the coalition's advantage.⁵

⁴Gennady Vasiliyev, "Will the 'Bridges' Hold? The War in the Persian Gulf and Soviet-American Relations," *Pravda*, March 12, 1991. The other side of this view was expressed by a military reporter, who voiced concern that the United States had become a "hyperpower" that might succumb to a "Persian Gulf syndrome," in contrast to its earlier Vietnam syndrome, and thus "lose its capacity to perceive notes of criticism." Captain S. Sidorov, "Seduced by the Sound of Their Own Voices," *Krasnaia zvezda*, March 22, 1991.

⁵I am grateful to my colleague Richard Kugler for bringing this point to my attention.

Many Soviet commentators were quite open in crediting the United States for its combat performance and leadership role—and equally candid in admitting their own errors. One scholar remarked how “many prophets are in disgrace” today, since their “ominous predictions have not been borne out.”⁶ Despite widespread predictions of a lengthy war and extensive allied casualties, “nothing of that sort happened,” since Iraq’s armed forces, “although equipped with perfectly modern weapons, were considerably inferior to the enemy in training” and had “no chance.” The article praised the United States, acknowledging that “the leader of the ‘free world’ was up to the job.”

Similarly, Foreign Ministry spokesman Gennady Gerasimov faulted himself for having been taken in by the view that “wars are not won from the air.” He went out of his way to “confess [his] mistake in this forecast,” although he noted in mitigation that he had been “in good company.”⁷ Gerasimov spotlighted the failure of Iraq’s air defenses and asked whether “sufficiently effective air defenses” were even possible any longer, given the power of the offensive shown by the coalition’s precision weapons and electronic warfare capabilities.

Predictably, some offered excuses after the fact. One commentator forgave Iraq’s air defenses for “not being sufficiently effective,” on the premise that “they were not designed . . . to stand up against the very powerful American air force.” He explained that “practically no air combat took place because Iraq’s air force was paralyzed on the ground during the first hours of the war.”⁸

Relatedly, a Soviet colonel wrote that although it was “possible that for Americans, this war will go down in the history of the art of warfare as a textbook example of a war that is almost bloodless for the victor, . . . we know that in the end, it was a veritable massacre and not a clash of equals.” This colonel complained that the war was merely a “testing ground” to which various coalition members had “rushed” their military innovations.⁹ Defense Minister Yazov offered a parallel injunction to “avoid being overly enthusiastic” about the

⁶Professor Georgiy Mirskii, “After Desert Storm,” *Literaturnaia gazeta*, No. 9, March 6, 1991, p. 1.

⁷Gennady Gerasimov, “The War in Pursuit,” *Sovetskaia kultura*, No. 10, March 8, 1991, p. 12.

⁸Colonel Vadim Solov'ev, Radio Moscow international service, March 4, 1991.

⁹Colonel Dmitri Belskii, “A Weapons Trial on a ‘Live Testing Ground,’” *Sovetskaia Rossiia*, March 21, 1991.

coalition's achievement, which, in his view, had hardly classed as "historic" and was "nothing exceptional."¹⁰

The General Staff lost little time producing an initial assessment once the dust had settled. General Nikolai Klokotov, head of the strategy section at the General Staff Academy, set the tone for most subsequent commentary, highlighting the asymmetry between the weapons used by the coalition and Iraq. According to General Klokotov, the allies wielded "the most modern means, some still in an experimental stage," whereas "Iraq possessed, at most, weapons produced ten to fifteen years ago."¹¹ The general rejected the argument that Baghdad's poor performance was in any way tied to "shortcomings in the Soviet weapons possessed by the Iraqi army." Instead, he offered that the root cause was Baghdad's "strategic error" in having failed to equip itself to deal with threats beyond its regional adversaries.

There were many such Soviet efforts to explain away the poor showing of their weapons and tactics. One colonel wrote that the coalition's air strikes proved so effective against Iraq's air defenses because the United States had been supplied with intelligence on those defenses by a source other than the USSR.¹² Others argued that the war did not represent a fair test of Soviet equipment and doctrine, since Iraq had also been armed and trained by the French. Most comments bridled at even a hint that Soviet weapons might have been inferior to those of the United States. With considerable justification, Soviet spokesmen argued that it was the way their weapons had been used more than anything having to do with their intrinsic capabilities that accounted for the poor military showing by the Iraqis.¹³

A more critical view of the surprises presented to Soviet analysts by the war came from Dr. Vitaliy Tsygichko, head of Moscow's National Security and Strategic Stability Studies Center. In a lecture at SHAPE immediately after the war, Dr. Tsygichko admitted that the models run by the General Staff before Desert Storm had failed to

¹⁰Interview with *Il Giorno*, reprinted in *Krasnaia zvezda*, May 16, 1991. The Defense Ministry's daily similarly remarked that the coalition's performance "offered few genuine 'surprises' as far as military specialists are concerned." "Very Few Surprises," *Krasnaia zvezda*, June 19, 1991.

¹¹Radio Moscow international service, March 7, 1991.

¹²Lieutenant Colonel Vladimir Golovko in *Krasnaia zvezda*, quoted by the Associated Press, February 28, 1991.

¹³See Serge Schmemmann, "Soviets Assert Their Arms Did Not Cause Iraqi Defeat," *New York Times*, March 3, 1991.

predict the war's outcome and had badly overestimated the number of likely coalition casualties. First, he explained, the modelers had no reliable data on what parameters to assign to allied precision weapons and space assets. Second, he pointed out, there was no way to measure and account for the Iraqi army's poor discipline and morale. Finally, he noted, the air campaign lasted considerably longer than Soviet analysts had anticipated.¹⁴

Shortly after the cease-fire, the High Command indicated its intent to mount a thorough review of allied and Iraqi operations during the war. An early workshop was convened in mid-March by the air defense forces (PVO). Evidently, it was not an event that produced much useful insight. According to an account by one frustrated participant, "prearranged speakers . . . managed to discuss precisely those issues that were not too thorny or imposing," with the result that "nobody so much as entertained the idea of saying something uncomplimentary about anyone from senior echelons." Because of this, said some junior officers in attendance, most of the really interesting comments were made by the delegates "in the lobby." Among the core issues that higher-ups at the conference had artfully avoided included the "lamentable condition" of Soviet military science and defense preparations; the "poor social and living conditions of missile personnel"; and the failure of Soviet planners to provide PVO with "the most up-to-date systems" to replace "obsolete models of weapons that accomplish little, as evidenced by the Gulf war, and should be retired."¹⁵

Later in May, Lieutenant General S. Bogdanov, head of the General Staff's Center for Operational and Strategic Research, announced that the war would receive close attention at "an upcoming Defense Ministry scientific and practical conference."¹⁶ That conference was later announced by the chief of the General Staff, General Mikhail Moiseyev, as having taken place on June 6.¹⁷ It appears to have been the principal military symposium convened on the subject in Moscow to date.

¹⁴Cited in Captain Brian J. Collins, USAF, "Airpower in the Persian Gulf: Soviet Analysis," unpublished paper, CAEE Defense Studies, Supreme Headquarters Allied Powers Europe, February 12, 1992, p. 12.

¹⁵Colonel A. Ludin, "Prepared Statements from the Podium. Honest Talk in the Lobby," *Krasnaia zvezda*, March 22, 1991.

¹⁶Interview by Colonel A. Dokuchayev, "The Lessons of Desert Storm," *Krasnaia zvezda*, May 17, 1991.

¹⁷Report by Oleg Moskovskii, TASS international service, June 7, 1991.

According to a TASS account, attendees at this conference "exchanged opinions on a wide range of issues, paying special attention to the problems of developing requisite forces; preparing and conducting operations by coalition forces; ensuring operational, logistical, and technical support; and utilizing the different arms of the services."¹⁸ In summarizing the results of the conference, Defense Minister Yazov reportedly "assigned specific tasks for applying the Gulf war experience to the training of Soviet command and military units."

That conference could not have been very edifying if its main conclusion, as reported by TASS, was that "political means failed to prevent the Gulf war, even though the possibility existed." Yet that is exactly what was cited as the lead "lesson learned" in the final section of an unpublished Soviet report on the war made available to the U.S. government by a visiting delegation of Soviet officers in the summer of 1991. This report appears to be an interim proceeding of the General Staff's June symposium. Among other things, it noted that CENTCOM's war plan was "not highly original" and was based on a blend of tactical surprise, the prompt achievement of theater-wide air superiority, and a sustained air campaign followed by joint air-land operations to secure the final victory.¹⁹

Evidently as a follow-on to the Defense Ministry's 1991 symposium, the Operational and Strategic Research Center of the General Staff is reportedly nearing completion of a comprehensive book on the Gulf war for general publication.²⁰ In the continued absence of that study, the extensive Soviet and Russian commentary that has accumulated thus far is more than adequate to illuminate the broad outlines of the High Command's thinking on the meaning of Desert Storm. Most of that commentary has centered on four recurrent themes: (1) the broadened role played by conventional air power in deciding the war's outcome; (2) the criticality of good training and operator proficiency in getting the most out of modern weaponry; (3) the disproportionate leverage offered by high-technology weapons as a force multiplier;

¹⁸TASS international service, June 6, 1991.

¹⁹"Soviet Analysis of Operation Desert Storm and Operation Desert Shield," LN-006-92, Defense Intelligence Agency, Washington, D.C., October 28, 1991. I wish to thank Lieutenant General James R. Clapper, Jr., the director of DIA, for providing me a copy of this document. It was passed to the U.S. government courtesy of Harvard University's Center for Science and International Affairs. See "What the Soviet Military Knew," *Newsweek*, January 20, 1992, p. 24, and David Evans, "Desert Storm Filled Soviet Military With Awe," *Chicago Tribune*, February 7, 1992.

²⁰Author's discussion in Moscow with editorial staff members of *Voennaya mysl*, April 30, 1992.

and (4) the meaning of these and related findings for future Russian defense planning and policy.

THE EXPANDED ROLE OF AIR POWER

Russian commentary on Desert Storm has been broadly divided between those who apprehended the pivotal role played by air power in the war and those of more traditional bent hewing to the long-standing doctrinal claim that aviation is, at best, a supporting element in a larger combined-arms approach to warfighting.

A major step toward recognition of the newly emergent role of air power was General Klokotov's admission that the Gulf war proved that "an enemy defending himself without mobility is doomed to defeat."²¹ General Klokotov credited the coalition's advantages in platforms and munitions, electronic warfare, reconnaissance, and self-defense as having enabled the "air superiority that was evident in the ground operations." He also acknowledged the coalition's operational skill in making prewar feints and deceiving the Iraqi leadership. He portrayed these as key factors behind Iraq's having been "put under the coalition's control from the first hours as a result of the air war."²²

For an operational culture that, for decades, had treated as holy writ the notion that air power has no independent standing, it was understandably hard for many Soviet military men to accept that air power had singularly shaped the outcome of the Gulf war, even if it had not been capable of doing so without the help of ground forces to contain Iraqi troops at the Saudi border and to consolidate the victory. Civilian analysts with no taint from this doctrinal brush, by contrast, had little problem accepting the new reality. A *Pravda* commentator depicted the coalition's victory as "a triumph of state-of-the-art weapons packed with electronics, such as 'all-seeing bombs.'" He said that this triumph "cast doubt on the effectiveness of tanks, especially in a situation in which Iraq's armored forces found themselves deprived of air cover or intelligence."²³ He concluded from the Gulf experience that "it is no longer quantity but the quality of arms and armed forces that is now becoming the decisive factor in a country's defensive strength." This comment echoed a similar remark a month

²¹Radio Moscow international service, March 7, 1991.

²²As if to telegraph his reluctance to embrace this change entirely, however, General Klokotov qualified his comment by noting that the coalition's air operations "totally resembled experimental exercises," implying that air power might not play such a dominant role in a "real" war fought against a more credible opponent.

²³Gennady Vasiliyev, "Smarter Than Two Generals," *Pravda*, April 11, 1991.

earlier by a Soviet colonel that "huge amounts of armored vehicles, tanks, and artillery pieces were absolutely useless."²⁴

The most resounding Soviet affirmation of the dominant role played by air power in Desert Storm came barely two weeks following the cease-fire. Not surprisingly, it emerged from an interview with the chief of the main staff of the Soviet air force, Lieutenant General A. Malyukov. After suggesting that the war had constituted "a textbook example of what air supremacy means—both for the country that gained it and for the country ceding it to the opponent," the interviewer asked the general whether he felt the war had reflected a practical application of the American "Air-Land Battle" doctrine.

In a reply that showed much perspicacity, General Malyukov answered: "I do not think so. There was no classical 'air-land battle.' Why? The point is that this war—and here General Dugan comes to mind—was obviously conceived from the outset as an air war to wear out the opponent by means of air strikes, disorganize his command systems, destroy his air defenses, and weaken the ground forces' striking power. In terms of the choice of objectives, it was more a case of a classic air offensive. And these objectives were achieved. Broadly speaking, *this is the first time we have seen a war in which aviation took care almost entirely of all the main tasks* [emphasis added]."²⁵

General Malyukov seemed unbothered by the poor showing of Iraq's Soviet-supplied hardware, saying that it was "hard to appraise the actions of the Iraqi air force because there were so few of them."²⁶ He

²⁴Quoted in Elisabeth Rubinfiel, "Soviet Military Is Shaken By Allies' Triumph Over Its Former Protege," *New York Times*, March 4, 1991.

²⁵Interview by Captain A. Sidorov with Lieutenant General of Aviation A. Malyukov, chief of the air force main staff, "The Gulf War: Initial Conclusions—Air Power Predetermined the Outcome," *Krasnaia zvezda*, March 14, 1991. In a related comment that cut to the heart of this often misunderstood issue, President Bush remarked after the war that true "jointness" does not mean using each service each time in equal measure, but rather entails using "the proper tool at the proper time"—which quintessentially meant air power in Operation Desert Storm. Amplifying on this comment, a USAF writer observed: "There is nothing wrong with Air-Land Battle so far as it goes. It's fine when ground forces are the primary tool, but it assumes they always will be. While air power plays an important and integral role in the ground battle . . . that's not all air power can do. Sometimes air power alone, or in a lead role, can be more effective and save lives. Air power doctrine doesn't deny utility to Air-Land Battle. It goes beyond it to consider additional options." Lieutenant Colonel Edward C. Mann, "Operation Desert Storm? It Wasn't Air-Land Battle," *Air Force Times*, September 30, 1991, pp. 27, 61. This is precisely the point that General Malyukov seemed to have in mind.

²⁶Such a relaxed attitude was also reflected in the comments of a gathering of Soviet fighter pilots who exchanged views with some American counterparts from

noted also that it had been impossible to venture an assessment of the performance of Iraqi army aviation, since that branch of the Iraqi military likewise never had a chance to show what it could do. "After all," the general pointed out, "helicopters do not operate independently. They always work in conjunction with ground forces as an integral part of an offensive or active defense plan Since the allies gave the Iraqis virtually no chance to mount such operations, the latter . . . refrained from using their helicopters."

In contrast, much of the Soviet military's commentary on the war seemed mired in old thinking and strove to belittle the coalition's air accomplishments. General Bogdanov of the High Command's Center for Operational and Strategic Research, for example, granted that the coalition had "achieved operational-tactical surprise in executing its offensive air operation and thus [had] paralyzed Iraq's troop and weapons control system." He added, however, that the coalition had "gambled" on gaining this surprise, to the point that "the success of the . . . war as a whole was made to depend on . . . the results of the air operation."²⁷

General Bogdanov conceded that "apparent trends in modern combat really do predetermine, to a certain degree, the primacy of aircraft as the most maneuverable and long-range instruments of force employment." However, he emphasized, "this does *not* mean that the need for the other branches of the armed forces has fallen away." On the contrary, he said, "the Gulf war graphically showed that the conceptual basis of the ground forces' determining role in achieving the ultimate goals [of war] retains its validity today."²⁸

Hahn and Bitburg air bases in Germany at the Poznan International Air Show in August 1991. During this occasion of the first visit by U.S. combat aircraft to Poland since World War II, Soviet air force Major Alexander Bozenkov remarked that there had been too little aerial combat in the Gulf war to support any broad generalizations one way or the other: "As far as I'm concerned, we have no basic information we can analyze, because the Iraqi air force was completely ruined." Colonel Timur Kambegov likewise downplayed any suggestion that the poor performance of the Iraqi air force had caused the Soviet air force great concern, saying: "I think it's an Iraqi problem." Steve Vogel, "Historic Changes; Friendly Exchanges," *Air Force Times*, September 16, 1991.

²⁷Interview by Lieutenant Colonel A. Dokuchayev with Lieutenant General S. Bogdanov, "The Lessons of Desert Storm," *Krasnaia zvezda*, May 17, 1991.

²⁸In seeking to clinch this argument, Bogdanov pointed to the order-of-battle data for the opposed sides, which allegedly spoke for themselves: "The sides' ground forces totalled more than 1 million men, up to 80 divisions and 90 separate brigades, approximately 10,500 tanks, and more than 12,000 guns and mortars." The fact that this vast assemblage of manpower and equipment was largely incidental to the course and outcome of the war was not considered in his analysis.

Bogdanov stressed that every war is unique and that different means will dominate in different situations. The general granted that "every modern local conflict . . . will be carried out using nonstandard methods and new forms of employing military forces." He called this "the most important conclusion from the Persian Gulf crisis." General Bogdanov said that "the contribution of various services to defeating an enemy will depend each time on the specific military-political aims of the war, the nature of the situation, and the plans behind the sides' actions." Implicit in this assertion was a claim that although allied air power may have turned in a stellar performance in Desert Storm, this was idiosyncratic and could not be expected to apply in other wars, in which the traditional role of ground forces would reassert itself.²⁹

Marshal Akhromeyev also took a traditional view of the primacy of air operations in Desert Storm. He said that the Iraqi air force was "incommensurable" with the air assets of the coalition, as a result of which Iraq's ground forces were left "virtually defenseless against air strikes." Perhaps wondering subconsciously how the Soviet air force might have performed in place of the Iraqi air force, he later added that "conducting air operations of that length of time against an opponent of approximately equal strength would have been impossible."³⁰

Akhromeyev appeared to miss the point that Desert Storm did not constitute a reflection of the U.S. Army's Air-Land Battle doctrine, at least not until the last four days during which ground operations ensued. He asserted that "from the outset of the war, the Americans operated in accordance with an air-land operations doctrine, which envisages . . . massive air strikes against the enemy *before* the commencement of ground operations [emphasis added]." What he failed to recognize was CENTCOM's assumption that air power, properly applied, might well minimize or even eliminate any need for a frontal assault against Iraq's armored forces and fortified positions. In this concept of operations, the "land" portion of the battle was always re-

²⁹As if to bear this out, Bogdanov suggested that the coalition did so well with its air assets because "the Iraqi armed forces offered no active resistance," as though the application of air power had nothing to do with that outcome. He also suggested that the effectiveness of air power was "quite high" mainly because air applications in the Gulf could "only be considered proving-ground tests." There is little question, though, that Bogdanov and others were impressed by much of what they saw. He observed, for example, that the coalition's use of space systems was "of definite interest to us."

³⁰Interview with Marshal S. Akhromeyev, "Why Baghdad Suffered Defeat: Marshal Sergei Akhromeyev on the War in the Persian Gulf," *Novoye vremya*, No. 10, March 1991, p. 22.

garded only as a possibility, rather than as a necessary and inexorable phase of the fighting.³¹

In trying to explain why things happened the way they did, Akhromeyev observed that "according to classical theory and exercise practice in recent years, five to seven days are allotted to independent air actions" in a combined-arms operation. Here, he was reflecting the deeply rooted Soviet doctrinal image of the role of air operations in land warfare.³² He then sought to explain why air power had performed so well in the Gulf by applying the following argument: "Taking account of expected fierce opposition from Iraqi forces, the American command radically altered its plan and conducted independent air operations not for seven days but for forty days." As a result of this strategy, said Akhromeyev, "the Iraqi army was demoralized and lost its combat capacity due to powerful air strikes. This predetermined the subsequent fast-moving nature and high efficiency of operations by coalition ground forces."³³ Although he was correct with regard to the facts, Akhromeyev failed to acknowledge that these "fast-moving operations," however stressful in and of themselves for those participating, merely constituted the final wrapup of a victory

³¹As Desert Storm entered its second week, Secretary Cheney and General Powell stated their determination to avoid a slugfest on the ground and their intention to continue the air war "indefinitely" in an attempt to pound the fight out of Iraq's entrenched forces in the KTO. No doubt there were sharp differences among the allied services, some parochially motivated, over the urgency of a ground assault that might result in extensive coalition fatalities. The U.S. leadership, however, indicated in no uncertain terms that it was prepared to commit to such a gamble only "if necessary." In the end, it turned out to be unnecessary. See Patrick E. Tyler, "Gulf Outlook: No Quick Victory in Sight," *New York Times*, January 24, 1991, and "Ground War Only 'If Necessary,'" *Baltimore Sun*, January 24, 1991.

³²As described in one informed account, Soviet planning for a theater-wide campaign against NATO during the mid-1980s envisaged an air operation lasting "several days" and commencing "simultaneously with the initiation of front offensive [ground] operations." Phillip A. Petersen and Major John R. Clark, "Soviet Air and Antiair Operations," *Air University Review*, March-April 1985, p. 42.

³³In a letter to the *Wall Street Journal* several weeks later, Marshal Akhromeyev expanded on this by noting that the coalition had the luxury of conducting a 40-day air offensive against Iraq because it was not threatened from the sea and had total control of the air. In these circumstances, he correctly pointed out, "there was no conceivable reason for beginning the ground operation any sooner, thus inevitably sustaining heavy losses." Confirming earlier reports of Soviet technical support to CENTCOM's war planning during Desert Shield, Akhromeyev also credited "Soviet briefings" with having "helped prepare the allied forces for such an overwhelming victory. The Soviet Union warned the U.S. that it would not be so easy to fight Iraq's ground forces, which were well-trained, tested by fire, and obedient. The Americans drew the necessary conclusions from our warning." Marshal Sergei Akhromeyev, "Soviet Briefings Aided Allied Assault," *Wall Street Journal*, April 11, 1991.

that had been foreordained by air power, rather than pivotal land battles that could have gone either way.³⁴

In the May 1991 issue of *Voennaia mysl*, the General Staff ventured its first considered view on the Gulf war. This report came in the form of a roundtable discussion focusing on initial air operations in Desert Storm. The roundtable was led by General Bogdanov and featured Colonel General I. Maltsev, chief of staff of the PVO; Lieutenant General A. Malyukov, chief of staff of the air force; Major General A. Gulko from the General Staff; and Rear Admiral A. Pauk from the naval staff.³⁵

The assessment concentrated mainly on things that had gone wrong and on putative expectations of the coalition's leaders that had not been met. It was said, for example, that more decisive results had been anticipated from the first three days of the air campaign.³⁶ Iraqi deception efforts, including the use of decoys and other fake targets, were said to have diverted allied strikes and caused many valuable sorties to be wasted, leading to unexpected disappointments. The discussion also highlighted marginal weather, blowing sand and dust, and other complications that were said to have hindered allied air operations.³⁷ Little was said, however, about the effect of those

³⁴He came close, however, to acknowledging that CENTCOM's strategy had prompted a qualitative change in the nature of warfare through the decisive role it provided for air power when he was pressed to explain why expectations of a prolonged and bloody land war proved wrong: "I have already said that we proceeded with estimates from the classical variant of American conduct of air-land operations. The increase in the duration and intensity of air strikes by several times sharply changed the nature of the war, which demoralized the Iraqi army." What he did *not* say was that this change in strategy represented a radical departure from the Army's Air-Land Battle doctrine toward a new conception of force employment that demonstrated what the unrestricted application of air power could do independently in shaping the course and outcome of a theater campaign.

³⁵"The First Lessons of War," *Voennaia mysl*, May 1991.

³⁶This is not the story told by those responsible for actually planning and executing the air campaign. According to one Pentagon official, "the professional guys in the Air Force never dreamed it could be done as fast as the public was led to believe." Quoted in Patrick E. Tyler, "Best Iraqi Troops Not Badly Hurt By Bombs, Pentagon Officials Say," *New York Times*, February 6, 1991. Even CENTCOM's air component commander, Lieutenant General Charles Horner, remarked after the initial successes of Desert Storm: "I underestimated the efficiency of air power." Quoted in Walter V. Robinson and Peter G. Gosselin, "U.S. Officers Hope to Avoid a Ground War," *Boston Globe*, February 4, 1991.

³⁷Weather was indeed a recurrent factor, sometimes a major one, in governing the rate at which the air campaign could work toward achieving its preplanned goals. It did not, however, begin to affect scheduled sortie generation until after the third day of Operation Desert Storm, by which time allied control of the air had been established for all practical purposes, despite initial reluctance on the part of CENTCOM officials

operations in bringing the war to a quick conclusion despite these asserted complications.

On medium-altitude and night tactics, the Soviet discussants got matters exactly backwards. They credited the coalition with signal successes against Iraq's long-range missile radars, but then insisted that Iraq's stop-gap use of short-range air-defense weapons had "forced" coalition pilots to bomb from medium altitudes and to fly at night. In fact, the early neutralization of Iraq's radar-directed weapons was carried out precisely to *enable* coalition pilots to operate from medium altitudes so as to remain above the reach of Iraqi short-range missiles, antiaircraft artillery, and small-arms fire.³⁸ And for many coalition fighters, notably the F-111, the F-117, and the LANTIRN-equipped F-15E and Block 40 F-16C, flying in the protection of darkness was a *choice*, not a necessity.³⁹

The discussants rightly rejected the idea that CENTCOM had sought to apply Douhet's theory of victory through strategic bombardment.⁴⁰

to claim such control categorically. See Molly Moore and Guy Gugliotta, "Clouds and Fog Over Gulf Region Knock Allied Air Raids Off Stride," *Washington Post*, January 22, 1991, and R. W. Apple, Jr., "Allied Aides Scaling Back Claims To Have Achieved Air Superiority," *New York Times*, January 22, 1991.

³⁸A severe challenge to tactical air effectiveness has long been the need for fighters to fly through defended airspace at altitudes as low as 100 ft to avoid getting hit by surface-to-air missiles and antiaircraft artillery fire. Two dangers associated with this have been exposure to small-arms fire and flying into the ground during a moment of distraction on the part of the pilot. In light of these drawbacks, the USAF has long sought ways through both technology application and innovative tactics to reopen a medium-altitude window so its pilots might be unburdened of these risks. As the commander of the Tactical Air Command at the time, General Robert Russ, noted as early as 1986: "Don't count on us flying in forever at 200 ft or at 100 ft. There's too much regime above that that we're not using, and we may decide to use it all." Quoted in James Canan, "Opening Rounds," *Air Force Magazine*, April 1986, p. 79. That goal was substantially achieved in Desert Storm, although at considerable cost in the accuracy of nonprecision-delivered weapons due to the resultant increase in release distances from the target.

³⁹Indeed, the F-117 stealth attack aircraft and the LANTIRN-equipped F-15E flew combat missions *only* at night. See Michael A. Dornheim, "F-117A Pilots Conduct Precision Bombing in High Threat Environment," *Aviation Week and Space Technology*, April 22, 1991, pp. 51-53, and Jeffrey M. Lenorovitz, "Air Crew Training, Avionics Credited for F-15E's High Target Hit Rates," *Aviation Week and Space Technology*, April 22, 1991, pp. 54-55.

⁴⁰In fact, the coalition's performance in Desert Storm came closer to validating the air power theory of General Billy Mitchell than of Douhet. As pointed out in one insightful account: "Whereas Douhet had looked on aircraft other than bombers as ancillary—nice to have, perhaps, but not absolutely necessary—Mitchell could argue the case for all types. The important thing for him was not strategic bombing, but rather the centralized coordination of all air assets under the control of an autonomous air force command, freed from its dependency on the army. If that goal could be achieved, he felt, everything else would fall into its proper place." David MacIsaac.

They incorrectly concluded from this, however, that the Gulf war had validated the time-worn "lesson" of previous wars that "success in war, as a rule, is achieved by the joint efforts of all branches of the armed forces." As an abstract proposition, this assertion contains a great deal of truth. But it failed to capture the preeminent role played by air power in Operation Desert Storm.⁴¹

The Soviet services represented in this roundtable generally offered "findings" that resonated well with the parochial interests of each. Not surprisingly, for example, Admiral Pauk saw the war as having confirmed the "leading role" of "naval forces . . . as the most universal and mobile branch of the military, capable of executing a wide range of tasks at sea, on land, and in the air."⁴² Army General Gulko countered that this pronouncement was of limited applicability, since the Gulf war had been conducted in a largely maritime theater of military operations (TVD). Air defense General Maltsev blamed coalition electronic warfare efforts for having shut down Iraq's air and missile defenses. He then suggested, as a "natural" conclusion, how this proved that "massive air strikes can only be countered by sufficient air defenses equipped with the latest weapons."

In a concluding comment that came closest to the mark, General Gulko from the General Staff remarked that allied air operations did not achieve the ultimate goals of the war single-handedly. He conceded, however, that the abiding intent of the air campaign had been to create the preconditions for a consolidation of victory on the ground with a minimum of losses. Most CENTCOM planners would probably accept that as a fair statement of the role which they themselves envisioned for coalition air power in Operation Desert Storm.

"Voices from the Central Blue: The Air Power Theorists," in Peter Paret, ed., *Makers of Modern Strategy: From Machiavelli to the Nuclear Age*, Princeton, Princeton University Press, 1986, p. 631.

⁴¹ General Malyukov of the Soviet air force did see the relevance of at least one of Douhet's principles, namely, the employment of air power to break the enemy's will.

⁴² Admiral Pauk was not revealing any distinctively *Soviet* naval tendency in this respect. His comment was of a piece with a claim by a retired U.S. naval officer that "desert warfare is much like naval warfare" and that "in a strategic sense, Desert Storm was very much a naval affair," since "in the last analysis, the primary Iraqi strategic motivation for the annexation of Kuwait . . . was access to the sea." Captain J. H. Patton, Jr., USN (Ret.), "More Gulf War Lessons," *U.S. Naval Institute Proceedings*, April 1991, p. 52.

THE IMPORTANCE OF TRAINING AND PROFICIENCY

It was on this long-sore subject, among fighter pilots at least, that Soviet commentators quickly found a resonant chord in discussing the operational implications of the Gulf war. Air force General Malyukov set the tone, asserting that "mistakes of both a tactical and operational-strategic nature committed by Iraq's leaders in using their air force" were the root cause of the unorganized resistance mounted by Iraq's air defenses. "For the umpteenth time," he said, "we had occasion to witness that the effectiveness of any weapon ultimately hinges on the people who employ it. Any weakness in the command system or in pilot training can lead to defeat."⁴³

Some commentators sought to explain away the poor showing of the Iraqi air force. A lieutenant colonel who had helped convert Iraqi fighter pilots to the MiG-29 in 1987 claimed that the Soviet air force did not routinely export operational tactics as a part of its foreign military training program. As a result, both "the organization of [Iraqi] units and their air combat tactics followed Western models quite different from our own." This pilot further stated that he had been assigned a "very narrow and specific task" that involved focusing "all attention on instructing the Iraqis in piloting techniques, without imposing our own notions about air force tactics."⁴⁴ He had little respect, however, for the caliber of the Iraqi trainees he had to work with.

Somewhat surprisingly, the Soviet instructor remarked that "the MiG-29 is a rather difficult aircraft to fly." He added that "for this

⁴³Interview by Captain Sidorov, *Krasnaia zvezda*, March 14, 1991.

⁴⁴Lieutenant Colonel Sergei Bezlyudnii, "I Taught Saddam's Aces to Fly," *Komsomolskaia pravda*, February 23, 1991. This statement is contradicted by previous Soviet practice in training Egyptian pilots during the 1960s and early 1970s. An Egyptian air force colonel who had commanded a MiG-21 regiment during the 1970 War of Attrition told me during a visit to RAND in 1979 that he constantly sparred with his Soviet air force adviser, who kept insisting that he follow Soviet-style GCI close-control tactics that were plainly not working. This colonel soon joined other Egyptian pilots who finally responded *en masse* to the Soviets, in effect: "If you guys are so smart, then you get up there and show us how to do it!" That ultimately led, once approvals were secured from Cairo and Moscow, to the commencement of Soviet-flown combat air patrols over Suez. After one such patrol attacked and damaged an Israeli A-4 on an interdiction mission south of Suez, five Soviet MiG-21s were shot down, with no Israeli losses, in a five-minute air battle prompted by a deliberate trap set up by Israeli F-4s and Mirages. That ended the Soviet-flown patrols, and Egypt agreed to a cease-fire with Israel the following day. For a first-hand account of this air battle from two of the Israeli participants, see Stanley M. Ulanoff and David Eshel, *The Fighting Israeli Air Force*, New York, Arco Publishing Company, Inc., 1985, pp. 72-73.

reason, the Iraqis assigned their best-trained pilots to master it.”⁴⁵ The officer then impugned the professionalism of Iraqi fighter pilots by sharing an anecdote from personal experience: “As is known, it is customary in the East to respect elders, and not just people who are older but also in a higher rank or status We were taking off in a two-seat trainer to practice some elements of combat training. Ahead of us was the aircraft of the squadron commander, and I was flying with his deputy. ‘Now,’ I said to him, ‘make a turn. We are going to intercept him.’ The deputy commander, a bright fellow, soon maneuvered his way to his commander’s six-o’clock. But I could sense that my ‘student’ was beginning to slacken off. ‘Go ahead,’ I said, ‘attack the target!’ And he replied: ‘I cannot. That is my commander.’ ‘What the hell does a commander mean in combat training? Carry out the order!’ In the end, the squadron commander was ‘shot down.’ But as a result, he would not speak to me for a week, since he had been insulted.”

Although some commentators were more inclined to make excuses for Iraq’s poor performance, there was unanimity that good equipment without good training is worthless. On this account, the Soviets generally had complimentary words for the coalition’s combatants. As one correspondent remarked, “they showed themselves to be well-trained fighting men who efficiently executed the orders of the political leadership. Their training [and] their attitude toward war as their business played a not insignificant role in achieving the military and political goals of the war.”⁴⁶

Another writer noted that although the performance of allied air power was commendable, “more thoughtful voices” were attributing the coalition’s victory to the “decisive” impact of the “low professional level and even lower morale and will of the Iraqi troops, their total lack of coordination, and the general absence of any sort of plan for conducting combat operations, plus the absolute diletantism of Iraq’s

⁴⁵More likely, the Iraqis assigned their most privileged pilots to the MiG-29, considering that it was a top-of-the-line fighter and that the Iraqi air force had only three squadrons of them. The Soviet instructor’s comment about the MiG-29 being hard to fly is odd in light of much contrary testimony, including from the chief test pilot of the design bureau that produced it. If anything, ease of handling compared to earlier-generation fighters is one of the MiG-29’s most appealing characteristics. For more on this from personal exposure to the airplane, see Benjamin S. Lambeth, *From Farnborough to Kubinka: An American MiG-29 Experience*, RAND, R-4000-RC, 1991.

⁴⁶Major M. Pogreliy, “Chocolate or Bombs,” *Krasnaia zvezda*, May 31, 1991. The title referred to the novelty of providing American troops with special chocolate that would not melt in the desert heat, even at temperatures of up to 60 deg C.

leader in his role as commander-in-chief."⁴⁷ This point was echoed by the deputy director of the General Staff's Center for Operational and Strategic Research, who stressed that although some Iraqi officers did receive senior service schooling at Soviet military academies, "there is a great difference between what they were taught and how this knowledge was applied in practice." The official added that it was less the "deficient Iraqi training level" that had occasioned Hussein's defeat (even though, he admitted, this did "play a role") than "the fact that Iraq's leadership ignored basic principles for using military forces and equipment effectively."⁴⁸

Undoubtedly the prize-winner for uncompromising *samokritika* in the mirror of the Gulf experience, however, came from a Soviet fighter pilot asked whether the war would have ended any differently had Soviet pilots been flying Iraqi airplanes. The lieutenant colonel replied: "Hardly, because the Iraqi pilots were trained by our pilots." When pressed, almost plaintively, to affirm that "surely [Soviet] pilots are not that bad," the officer responded coldly: "Any thinking [Soviet] pilot today knows that if war comes, he is assigned the role of cannon fodder. He also knows that this bothers very few people at the top." Asked at the end whether he feared that "some unpleasantness" might ensue in reprisal for his candid remarks, the pilot replied fatalistically: "I am afraid of something else. I know what will happen to my ground-attack aircraft in the first days of a real war."⁴⁹

THE VALUE OF TECHNOLOGY AS A FORCE MULTIPLIER

Soviet commentary in the wake of Desert Storm was replete with expressions of respect for the ability of technological leverage to offset more traditional military advantages. One article saw as a "very important factor" the coalition's use of electronic warfare platforms to jam Iraq's radar-directed SAMs. As a result, the writer said, the Iraqis were reduced to defending themselves with the ZSU-23/4 *Shilka* anti-aircraft cannon, which was limited to an effective slant range of only 2.5 km. Because of allied jamming, he added, "none of the modern systems like *Osa* [SA-8] and *Kvadrat* [SA-6] were used to

⁴⁷A. Burmistenko, "Blitzkrieg in the Gulf: Two Viewpoints," *Trud*, April 2, 1991.

⁴⁸Interview by V. Badurkin with Lieutenant General V. Shtepa, "Blitzkrieg in the Gulf: Two Views," *Trud*, April 2, 1991.

⁴⁹Interview by Yu. Geiko with Lieutenant Colonel Vladimir Vysotskii, "We Are Rarely in the Air . . .," *Komsomolskaia pravda*, August 7, 1991.

protect the troops.”⁵⁰ The author said it was mainly this that accounted for “the almost unimpeded bombardment of Iraqi positions from medium altitudes.”⁵¹ He attributed much of the failure of Iraq’s air defenses to “a lack of automated fire control,” which reduced gunners and missileers to random firing “over an enormous expanse of airspace.”

The heightened role and centrality of electronic combat were recurrent themes in Soviet commentary on Gulf “lessons.” Of course, this was hardly a revelation to Soviet planners. Admiral Sergei Gorshkov had argued a decade before that victory in future wars would go to the side that better exploits the electromagnetic spectrum.⁵² Soviet military writings in the 1970s and 1980s, moreover, routinely noted that if a third of an enemy’s forces could be neutralized by ECM and another third destroyed by fire, the remaining third would become irrelevant for any practical combat purposes.

In the wake of Desert Storm, however, there emerged a new Soviet argument maintaining that “electronic warfare has grown from an operational form of support into a means of warfare that *directly* affects the enemy.”⁵³ This observation by Lieutenant General V. Shtepa added that the General Staff had taken new looks at electronic combat since the end of the 1970s, but that the results of Desert Storm had forced Moscow “to return to our plans for improving combat equipment, to refine them, and, most of all, to apply maximum efforts to fulfill them.”⁵⁴ General Shtepa also noted that the war had proven the “high degree of combat effectiveness” of precision-guided weapons, although he qualified this by saying that such weapons were “used under almost ideal conditions—the locale was

⁵⁰*Osa* (“Wasp”) is the Russian nickname generally given to the SA-N-4 shipboard SAM, a variant of which later became the SA-8 developed for ground force PVO units. *Kvadrat* (“Square,” as in “to the second power”) is what the Soviets call the export version of their SA-6. See Steven J. Zaloga, *Soviet Air Defense Missiles: Design, Development, and Tactics*, Coulsdon, Surrey, Jane’s Information Group, 1986, pp. 231, 272.

⁵¹Colonel O. Falichev, “The *Shilka* vs. the B-52: Experience Gained from the Gulf War,” *Krasnaia zvezda*, April 5, 1991.

⁵²See, for example, his comment that “superiority in the field of developing military electronics is becoming one of the essential conditions for military superiority over an enemy.” Admiral of the Fleet Sergei Gorshkov, *The Sea Power of the Soviet State*. Annapolis, Maryland, Naval Institute Press, 1976, p. 208.

⁵³Interview with Lieutenant General V. Shtepa, *Trud*, April 2, 1991, emphasis added.

⁵⁴General Shtepa also indicated that the High Command was in no rush to judgment about what did or did not matter in the war when he remarked that “an in-depth analysis of all aspects of this war still lies in the future.”

flat as a pancake, the weather was good, and most important, there was no resistance." All the same, Russian defense planners must be paying respectful heed to the implications of this ringing confirmation of Marshal Ogarkov's direst predictions from the early 1980s. As the General Staff's interim report on the war clearly stated, "the American command element and its allies essentially employed their entire arsenal of reconnaissance assets," and the "integration of control, communications, reconnaissance, electronic combat, and delivery of conventional fires into a single whole was realized for the first time."⁵⁵

Finally, on the question of quality vs. quantity, the Deputy Defense Minister for Armaments, Colonel General V. Mironov, argued that the coalition had "relied on achieving superiority not so much in the quantitative as in the qualitative sense."⁵⁶ Indeed, he noted, many of the weapons that were hurriedly deployed to the theater and employed to greatest effect were "available only in small numbers." General Mironov was quick to add, however, that the chief explanation for the coalition's victory "was not armament but the poor morale of Iraqi personnel [and] their lack of will to engage in combat." Because of this, he said, "it makes little sense to talk about a comparative assessment of weapons effectiveness of the opposed sides. It is precisely this point on which all sorts of 'experts' are being quiet as they proclaim the superiority of American over Soviet weapons."

Notwithstanding this disclaimer, Moscow's sensitivity over the poor showing of Iraq's Soviet-supplied equipment was clearly apparent to any reader of Soviet commentary on the war. As the following discussion will show in fuller detail, the leaders of the former Soviet armed forces are well aware that they lag behind the West in the sophistication and capability of many of their most advanced and cherished weapons.

⁵⁵"Soviet Analysis of Operation Desert Storm and Operation Desert Shield," p. 32.

⁵⁶Reader's query and reply by Colonel General V. Mironov, "What Are Western Experts Being Quiet About?" *Glasnost*, No. 17, April 25, 1991, p. 6. A similar conclusion was embodied in a postwar remark by Major General G. Kirilenko about how the allied performance in Desert Storm convincingly showed that "the number of barrels and ammunition, aircraft and bombs is no longer the most important factor. It is the computers that control them, the communications that make it possible to manage forces on the battlefield, [and] the reconnaissance and concealment assets that highlight the enemy's dispositions and cloak one's own." "Who Succumbed in Desert Storm, Saddam Hussein or Soviet Military Equipment?" *Komsomolskaia pravda*, June 4, 1991.

IMPLICATIONS FOR FUTURE POLICY

As many Russians have freely admitted, the operational and historic meaning of the Gulf war will take time to comprehend and assimilate properly. In the meantime, there will be no rush by the General Staff to apply so-called "lessons" from that experience, least of all "lessons" that call for substantial new budgetary outlays for R&D or procurement.⁵⁷

There has been no shortage, however, of Soviet commentary on aspects of Desert Storm that have a direct impact on current Russian military deficiencies and requirements. Some of these implications fall in the realm of needed force posture improvements that were highlighted by the performance of coalition weapons in the Gulf. Even before Iraq's invasion of Kuwait, there had appeared a complimentary article on the F-117 which acknowledged that "the United States currently occupies the leading place in the world in . . . stealth technology."⁵⁸ This detailed portrait of the F-117 noted American acceptance of Soviet equivalence in some areas of low-observable technology (such as in reducing helicopter and ship noise levels), but conceded that "the USSR lags behind the United States in other spheres of stealth technology." The authors added: "We must admit that the United States is currently the legislator of fashion in the sphere of stealth technology, and the experience of history teaches that lagging behind in the most important tactical-technical specifications of combat aircraft (and this precisely means signature reduction at the present time) can lead to tragic consequences at the outbreak of combat operations."⁵⁹ The impact of subsequent F-117 operations against

⁵⁷As one indicator of this, civilian analyst and recently appointed first deputy Russian Defense Minister Andrei Kokoshin reported that the defense industry will receive virtually no production orders from the military in 1992 because of the latter's intent to apply most of its outlays toward providing much-needed housing and other amenities for its personnel. See John Lloyd, "Sharp Cut in Soviet Defense Orders," *Financial Times* (London), October 28, 1991.

⁵⁸Two-part article by Vladimir Ilyn and Viktor Bakurskii, "The 'Wobbly Goblin' and Other Aircraft," *Krylia rodiny*, No. 11, November 1990, pp. 30-32, and No. 12, December 1990, pp. 22-23.

⁵⁹A sharply divergent line on the value of the F-117 was taken by the head of the Mikoyan Design Bureau, Rostislav Belyakov, during an interview at the 1991 Paris Air Show. Belyakov disparaged the F-117 as the product of "an experimental program" and said that it had "no future." Although he was correct in stating that the F-117 "cannot perform a fighter's function, only a bomber's," he was off the mark in claiming that the aircraft's role in the Gulf was being overrated since, according to him, the coalition had resorted to precursor attacks and standoff jamming to disable Iraqi radars so the F-117 could get in. See Michael D. Towle, "Stealth Jet Doesn't Overawe Soviet Expert," *Fort Worth Star-Telegram*, June 21, 1991. A similar rhubarb surfaced more recently in Washington in connection with the B-2 debate over the extent to

high-value Iraqi targets in the opening hours of Desert Storm almost surely reinforced this impression.

In this, as in other areas of the technological competition, the main concern appears to be whether Russia now possesses the organizational and financial wherewithal to stay abreast of Western technology applications. One civilian noted how "many Western experts are arriving at the conclusion that the outcome of the Gulf conflict has confronted the Soviet military with a long-urgent need to review its military doctrine and principles of forming an army and, especially, to repudiate its emphasis on the massed use of motorized rifle and armored units that has persisted since World War II." This writer also noted American recognition that the Gulf war "will be energetically and painstakingly studied by the Soviet military." He then posed the key question, "which no one here dares answer, whether or not the USSR will find the material capabilities to produce a new spurt in weapons technology."⁶⁰

Some commentators sought to argue that the situation was not as bad as it sounded. For example, the deputy director of the General Staff's Center for Operational and Strategic Research, Lieutenant General Shtepa, conceded that it would be disingenuous to say that "we have no problems with military science or with the quality of our arms. Unfortunately, we have many such problems."⁶¹ Yet he was quick to counsel against "linking [Soviet] difficulties to Iraq's defeat in the war."

There was also more than one instance of sour grapes in Moscow's acknowledgment of the superior performance of allied air forces. One

which the F-117 had been self-sufficient in Desert Storm, with the Air Force having been forced to concede that "some" F-117s benefited from diversionary jamming support from EF-111s. See Bruce B. Auster, "The Myth of the Lone Gunslinger," *U.S. News and World Report*, November 18, 1991, p. 52. However, even those who have most sharply faulted the Air Force for having exaggerated the F-117's self-sufficiency so as to bolster its case for the B-2 admit that stealth works and that the F-117 "did not need the same enormous 'support packages' . . . that conventional aircraft require." In point of fact, the F-117 was the first and only aircraft to drop a bomb on downtown Baghdad, and it did so with no precursor attacks or escort support. As CENTCOM's air component commander, Lieutenant General Charles Horner, noted in an address after the war: "We had some initial uncertainties We had a lot of technical data about stealth technology, but I had no way of knowing that we wouldn't lose the entire fleet the first night. Those boys were going in there naked, all alone. We were betting everything on the data. As it turned out, they flew every night and we did not suffer battle damage to any of the F-117 aircraft." Speech to business executives for the National Security Education Fund, Washington, D.C., May 8, 1991.

⁶⁰V. Nadein, "Our Colonel Said: 'I Do Not Believe It!' What the Conflict in the Persian Gulf Has Demonstrated," *Izvestiia*, March 8, 1991.

⁶¹Interview with Lieutenant General Shtepa, *Trud*, April 2, 1991.

article in a conservative military journal noted how a "storm of delight" in Moscow's "so-called democratic press" had recently been filled with "mocking pronouncements regarding the outdated Soviet arsenal and its fatal incapacity to fend off Western 'wonder weapons.'"⁶² Grudgingly allowing that there was "some truth to this—in recent years our military technology has failed to keep pace with the times," the authors nevertheless pointed the finger of blame at those self-appointed "democrats" who "are up in arms against our military-industrial complex and who have decided to destroy it with the help of so-called conversion"

This inflammatory article held that the coalition had gained air superiority by default, since "Iraq never called this superiority into question From the very start of the war, having drawn appropriate conclusions from a hopeless correlation of forces, Iraq simply took its aviation out of the picture. What had the superiority of American technology to do with it?" This diatribe was forced to concede, however, the "indubitable fact" that "our military machine lags behind the American one in terms of modern instruments, electronic devices, computers, and so on used in aviation This gap is quite perceptible"—even though it was "those silver-tongued orators who espouse endless conversion" who were most to blame for "our lagging even further behind the United States and NATO."⁶³

General Malyukov offered perhaps the most searching comments from a senior officer on the military implications of the war for the former USSR. He noted that "from the first days of combat operations, it was clear that this was a war of modern high-technology equipment, that is, of everything that modern aviation represents. He who does not realize this runs the risk of falling hopelessly behind in the qualitative improvement of aviation equipment, with all the ensuing consequences."⁶⁴ He then added: "Naturally, we cannot say: Let's drop everything and develop the air force at the expense of the

⁶²E. Gams and Yu. Selivanov, "Who Defeated Whom in Kuwait?" *Voenno-istoricheskii zhurnal*, No. 6, July 1991, pp. 72–74.

⁶³Yet another implication for Moscow concerned whether the coalition's performance clinched the case for a shift to an all-volunteer military establishment. Battle lines were drawn over this issue largely according to where spokesmen stood on it before the war, with traditionalists in the High Command arguing for a continuation of conscription and younger officers maintaining that the Gulf experience proved that a change was overdue. For further background on this issue, see Eugene B. Rumer, *The End of a Monolith: The Politics of Military Reform in the Soviet Armed Forces*, RAND, R-3993-USDP, August 1990.

⁶⁴Interview in *Krasnaia zvezda*, March 14, 1991.

other services. But there can be no two opinions about the fact that the air force requires major investments."

General Malyukov further emphasized that the massive logistic support needs of Operation Desert Storm clearly revealed that "no country has an excess of military transport aviation." This fact, he said, bore special relevance to the USSR, all the more so "if you consider that our aircraft are getting old." He pointed out that "what is needed is an optimum balance between combat and support needs As the experience of the war has shown, the main NATO countries' armed forces have resolved this problem." By contrast, noted General Malyukov, "in our country the trend toward priority development of combat hardware [and] of its visible combat potential unfortunately persisted for a long time, while operational and material and technical support remained in the background."⁶⁵

Much of the public discussion of the war's implications focused on broad matters of national policy rather than on more narrow military-technical concerns. Nonmilitary commentators with no immediate stake in various sides of the force modernization debate dominated these discussions. Almost uniformly, the "lessons" of a broader policy nature which they identified pointed to the USSR's need to abandon its discredited ways and to embark on a more cooperative relationship with the West.

One observer, for example, remarked that as attested by the Gulf experience, "the new world order has passed its first test." He suggested that the USSR needed to consider carefully the continued wisdom of sticking by its "old friends." He noted how "some have reproached our foreign policy establishment for an unduly rapid turn-about," whereby "today we cultivate friends and sell them weapons and then tomorrow we disavow them." He countered this allegation by suggesting that whereas Moscow needed to be sensible in selling weapons if it wished to sell them at all, "the situation does not always depend on us. It also depends on the 'friends' themselves. The words of the poet . . . may serve as an answer to such a reproach: 'I also at times have lost friends—not because I am fickle, but because there are friends who have to be lost.'"⁶⁶

⁶⁵Here General Malyukov appeared unaware that the United States, for years, suffered a similar distortion of its investment priorities. For discussion, see Benjamin S. Lambeth, "Pitfalls in Force Planning: Structuring America's Tactical Air Arm," *International Security*, Fall 1985, pp. 84–120.

⁶⁶Genrikh Borovik, "Of What Is Norman Schwarzkopf Guilty?" *Literaturnaia gazeta*, No. 11, March 20, 1991, p. 4. On this issue, Stanislav Kondrashov noted that "the demand for U.S.-made arms is now rising as the demand for Soviet weapons—

Andrei Grachev, then deputy chief of the Central Committee's International Department and subsequently Gorbachev's personal spokesman, saw more fundamental policy ramifications. In his view, the Gulf crisis had "occasioned a new and unprecedentedly international coalition, formed for the first time since [World War II] on a basis of universal principles rather than affiliation with the Eastern or Western bloc."⁶⁷ Grachev asked rhetorically: "Did supermodern American weapons gain the upper hand over backward Soviet weapons, or did, perhaps, the technologically enlightened West, in an alliance with an East weakened by internal contradictions, deal out an object lesson to the South?" Grachev cautioned, however, that "had there been no Persian Gulf crisis, it would have had to be invented—if only to rid Soviet-American relations of illusions and suspicions that our countries' positions had become identical."

Grachev was careful to insist that Moscow had not compliantly rubber-stamped American policy. He even intimated that concern over a loss of Soviet support had figured prominently in disinclining the Bush Administration from pressing the exploitation phase of the war. He gently implored the United States to be humble in victory and to avoid "a double standard in seeking paths for a stable settlement in the Persian Gulf," such as presupposing "the sole right to wear a sheriff's star and to claim the role of 'world policeman.'"

Grachev also expressed hopes that Washington's victory over Iraq would not result in "a return to the familiar reliance on military power as the main factor ensuring the United States' dominant position in the world He argued that such a reversion would play directly into the hands of Moscow's own "bellicose politicians, who see a revival of global military confrontation as the simplest way to return to our impoverished country the status of a superpower, the sole characteristic of which is the capacity to annihilate the enemy, even at the price of suicide." He then affirmed that in the Gulf crisis, the United States had "subordinated its military machine to the restraining supervision of the United Nations and, in the end, had halted its advance at the outer bounds of the U.N. mandate it had received."

defeated and disgraced, as it were—falls as a result of antipublicity in the same war. Just try to prove that it was not the tanks or submachine guns that were bad, but the Iraqi soldiers and officers who were fighting or, more accurately, not fighting." Kondrashov added: "There is evidence that in light of the lessons of the armed conflict in the Persian Gulf, our traditional and potential buyers are scratching the backs of their heads over whether to buy." "Financial Repercussions of the War," *Izvestia*, March 30, 1991.

⁶⁷ Andrei S. Grachev, "A War for Peace?" *Novoye vremya*, No. 17, April 1991, pp. 20-22.

He added: "It seems that in the endgame of the war, Washington recognized that whereas the war was being won by military force, peace could be established only by policy."

In conclusion, Grachev said that any practical realization of such altered outlooks in world affairs would depend on "the extent to which we can reinforce the world's trust that has been earned by the new Soviet policy." Toward this end, he suggested that the abiding challenge was to "resist the temptation to engage in an arms race in the Third World. Instead of complaining about a continued threat from NATO, we should be making bolder use of international structures." Such an approach, he said, "has a better chance of easing the burgeoning North-South conflict, which could, in the future, become a most acute global problem."

Capping his argument, Grachev added: "The times when the military wherewithal for deterring our imaginary enemies could be acquired at the cost of deepening the backwardness of the whole country are gone. First, because there are few whom it deters. Second, because we no longer have the former enemies. This is one further lesson of the crisis in the Persian Gulf."

5. CONCLUSIONS AND LESSONS INDICATED

It is too early to tell whether the Gulf war will prove a defining experience for Russian policy. Operations Desert Shield and Desert Storm occurred at a time when the Soviet political system was hopelessly unsuited to profit from any teachings of the war because of more pressing distractions, notably an economy in ruin and the rapidly accelerating disintegration of the Soviet state. These problems were bad enough while the Gulf crisis was running its course. They skyrocketed to a level of all-consuming domination, however, following the failed August coup and the subsequent collapse of communism and the USSR that ensued. As a result, thinking about reacting to insights gathered from the Gulf has been far from a burning concern on the Russian military agenda.

Had the Gulf war occurred during the old days of stagnation and party rule (leaving aside the fact that the escalatory potential of East-West tensions would almost surely have ruled out anything like what the coalition did in Desert Storm), Moscow's approach to its "lessons learned" obligations would, in all likelihood, have paralleled the way the Soviets reacted to the Beka'a Valley debacle suffered by Syrian fighters and SAMs during the 1982 Lebanon war. At that time, Soviet authorities grossly distorted their public accounting of events because of their humiliation over the appalling performance of Soviet weapons in the hands of the Syrians. Privately, they set about "collecting data" on what went wrong with a singular vengeance, yet with a narrow-minded fixation on technical detail that failed completely to comprehend the more abiding meaning of the war's outcome.¹

¹As I wrote at the time in assessing Moscow's postmortem on Israel's and Syria's combat performance, "the real 'lessons' of the Beka'a Valley do not concern weapons so much as concepts of force employment. In the end, the Soviets saw the bitter results of a confrontation between two radically divergent military philosophies, in which the Syrians were simply outflown and outfought by vastly superior Israeli opponents. Without question, its very capable American hardware figured prominently in helping Israel emerge from the Beka'a Valley fighting with a perfect score. Nevertheless, the outcome would most likely have been heavily weighted in Israel's favor even had the equipment available to each side been reversed. At bottom, the Syrians were not done in by the AIM-9L's expanded launch envelope, the F-15's radar, or any combination of Israeli technical assets, but by the IDF's constant retention of the operational initiative and its clear advantages in leadership, organization, tactical adroitness, and adaptability. This is the overarching 'lesson' of lasting significance from the war—and the last one the Soviets seem close to comprehending and understanding." Benjamin S. Lambeth, "Moscow's Lessons from the 1982 Lebanon Air War," in Air Vice Marshal R.

In its application of resultant "lessons" deduced from Syria's rout, the High Command no doubt moved smartly toward implementing such measures as altering SAM radar frequencies, issuing new R&D requirements, tinkering with existing hardware, and related suboptimizing at the margins of its problem highlighted by Syria's poor performance. Yet it made no discernible effort to abandon any of the time-worn rigidities in its training emphases, command and control procedures, and overall approach to war that lay at the heart of Syria's trouncing by the Israelis. Indeed, the Soviet armed forces were all but *incapable* of any such change because of their deep-seated adherence to a philosophy of top-down control that served to perpetuate such problems rather than encourage their solution.²

Today, the situation is quite different. With the gradual emergence of democratic rule in Russia that was set in motion (one hopes for good) by Boris Yeltsin's triumph following the abortive August coup, Russian officialdom has become increasingly accessible in a manner long taken for granted by students of politics in Western societies. In the case of the Gulf war, military leaders in Moscow have shared their thoughts on what happened and what it may mean for future Russian policy with a degree of candor totally unlike what was served up following the Beka'a experience at a very different time in Russian history.

A. Mason, ed., *War in the Third Dimension: Essays in Contemporary Air Power*. London, Brassey's Defense Publishers, 1986, p. 147. In a similar assessment of the reasons for the collapse of Iraq's air defenses on the first night of Operation Desert Storm, CENTCOM's air component commander remarked that Saddam Hussein simply "had no idea what air power is Any of my captains could have run his air force and caused much more trouble than he did." Quoted in Richard Mackenzie, "A Conversation with Chuck Horner," *Air Force Magazine*, June 1991, p. 60.

²It is for this reason that I believe a notion popular among many USAF leaders at the time, that the Soviet air force might any day change its ways to the detriment of Western security, was based on a faulty premise. In an analogy to U.S. experience, then-Lieutenant General John T. Chain, Jr., argued in 1985 that the USAF had also been "stuck in a rigidity of training [that had] led to a weakness in the Vietnam air war. However, with the advent of the Aggressors and of Red Flag, that all changed very significantly in a very short period of time One could make that same argument that with a new leader of the Soviet air force, with a new philosophy as radical as [General] Momyer's Aggressors and [General] Dixon's Red Flag, the capabilities inherent in Soviet weapons systems would have a potential to be exploited which they're not being now." Letter to the author, March 26, 1985. This counsel, understandably concerned as it was with capabilities rather than intentions, overlooked the fact that the Soviet air force, unlike its American counterpart, was governed by structurally ingrained rules inherent in any communist organization which made it all but unsuceptible to the sort of overnight changes in training and tactics that were brought about in TAC by the Dixon revolution of the mid-1970s.

Not only that, most of the ingrained impediments to Soviet military change that existed in the wake of the Beka'a debacle have been eliminated by the reforms launched by Air Marshal Shaposhnikov. These include a dismantling of political controls in the armed forces, active encouragement of free expression at all levels of the officer corps, and a repudiation of the command-administrative philosophy that remained a perennial obstacle under the old system. As the commander of the Commonwealth air forces, Colonel General Piotr Deinekin, pointed out in this respect: "Regardless of the final shape the reform will take, the air force will benefit from it. This country's air force has suffered the burden of communism for 74 years. Now the burden has finally ceased to exist."³

The full import of these and other developments for the Russian armed forces must remain a topic for a separate study. However, the air force and other service arms of the former USSR now have the incentive *and* the opportunity to take appropriate steps to replace outmoded practices. To be sure, many counterproductive habits of the past still hold powerful sway over Russian military behavior. These will not be done away with overnight, as many Russians themselves are the first to admit. But the new Russian armed forces now stand at the threshold of the most radical changes in their organization, mission tasking, operational style, and force composition since the establishment of the Red Army in the 1920s.⁴

It will most likely be some time, however, before we see any major moves from Moscow to assimilate its teachings from the Gulf war because of more immediate problems facing the military leadership. These include sorting out Russia's security relations with the other republics of the faltering Commonwealth of Independent States, notably Ukraine; dealing with nuclear command and control issues posed by the collapse of the Soviet state; keeping the defense industry from dying as procurement funds have run out, weapons production

³Quoted in Alexander Velovich, "Soviet Forces Face Restructure," *Flight International*, September 25–October 1, 1991, p. 15. In a separate interview, General Deinekin expanded on this by noting that "the processes of departyization and depoliticization . . . that have been started actively reflect the long-standing attitude of most military flyers. The party political structures that existed interfered constantly and quite persistently in the conduct of virtually all practical aspects of our combat training, essential activity, and prospects, tying the hands of commanders and specialists." Interview by N. Belan with Colonel General of Aviation P. Deinekin. "Gaining Altitude," *Sovetskaia Rossiya*, September 6, 1991.

⁴One of the best reviews of that formative period in Soviet military development is Edward Mead Earle, "Lenin, Stalin, Trotsky: Soviet Concepts of War," in Edward Mead Earle, ed., *Makers of Modern Strategy*, Princeton, Princeton University Press, 1944, pp. 322–364.

has slowed down, and available resources have been channeled mainly toward providing housing and other amenities for Commonwealth troops; clearing out deadwood from the upper ranks of the officer corps; closing the books on political controls in the armed forces; and generally bringing the military establishment back to a state of good health. Satisfying these demands will have to precede *any* other changes in the Russian armed forces, including changes to absorb insights derived from Desert Storm.

At the same time, the entire context of Russian security planning has changed fundamentally in the past two years. With the ending of the Cold War, the unification of Germany within NATO, the dissolution of the Warsaw Pact (and, with it, the disappearance of Eastern Europe as a buffer zone), and the progressive trend toward normalization in Russian-American relations, all the premises and assumptions that guided Soviet force development and operational planning for four decades have been rendered moot.

Because of these changes, the military leadership must revisit virtually every dimension of its existing military doctrine and force requirements. Much as the American defense community has recently come to discover for itself in this regard, the Russian High Command is deeply involved in adjusting to a full-blown paradigm shift from a *threat*-specific way of life to a more *mission*-specific planning environment, in which external challenges have become indeterminate and unavailing of easy yardsticks for deciding on force size and composition.

THE DOMINANCE OF A BIG-PICTURE UNDERSTANDING

Notwithstanding these inhibitions, and despite occasional manifestations of service parochialism and injured pride, most Russian analysts have been able to assess the Gulf war and its implications with an open mind. Unlike much of the reportage in the Western defense literature, Soviet and Russian pronouncements on Desert Storm have sought to extract more highly aggregated inferences and conclusions from the war experience.

In this, the Russians have been more like hedgehogs than foxes, in Sir Isaiah Berlin's formulation, in their inclination to focus on first-order rather than second-order implications.⁵ This has put them a

⁵This formulation was put forward four decades ago by the British philosopher in a thoughtful appraisal of Tolstoy's theory of history. In it, he quoted an obscure line from the Greek poet Archilochus, which read: "The fox knows many things, but the

step ahead of those in the West who have been tempted to use the war experience as a vehicle, first and foremost, for vindicating favored programs or other parochial interests. By contrast, most Soviet and Russian commentary on the war has shown less fixation on systems and hardware per se than on changes in broader patterns of military conduct—indeed, in the *essence* of modern war—suggested by the war's outcome.

A retired Soviet military scientist, Major General I. Vorobyev, offered a superb example of this broader perspective in August 1991. In seeking to highlight the most distinctive features of the war, he noted that “for the first time in history, we observed a case in which a very large grouping of ground troops (more than a million men) suddenly found itself unable to do its business.”⁶ General Vorobyev was referring both to Iraq's and to the coalition's ground forces, and he confirmed, if by implication, the newly emergent dominance of precision weapons delivered by air.

The general was careful to caution that it was “scarcely correct to draw sweeping conclusions . . . from the experience of one local war.” He added that there was much that had been “specific and subjective” in the way the Gulf war played itself out. He further acknowledged the gathering controversy between those inclined to believe that “the Persian Gulf war signifies the beginning of a new era in military affairs—the era of high-technology wars” and those wedded to the more traditional line that the war was an atypical “testing ground” from which one cannot draw any conclusions, since the coalition “did not encounter any resistance from the Iraqi army.” For his own part, Vorobyev said it “would be a great mistake not to see in it the appearance of a number of novel trends, especially in the development of

hedgehog knows one *big* thing.” Students of comparative literature have long quarreled over the meaning of these words. But Sir Isaiah suggested that they can be interpreted to distinguish two very dissimilar approaches to a problem. One, represented by the fox, pursues ideas that are centrifugal rather than centripetal and that deal on many levels with a large variety of experiences. The other, represented by the hedgehog, tries to relate everything to a single central vision about what happened and what really mattered about it. See Isaiah Berlin, *The Hedgehog and the Fox*, New York, Simon and Schuster, 1953, p. 1.

⁶Major General I. Vorobyev, “Are Tactics Disappearing?” *Krasnaia zvezda*, August 14, 1991. As my RAND colleague David Ochmanek has pointed out, this statement is literally incorrect if one considers the operational paralysis that was inflicted on the “large groupings of ground forces” deployed by France and the Soviet Union during the Nazi blitzkriegs of 1940 and 1941. In those two cases, however, the defeats were occasioned mainly by superior enemy stratagem and operational tactics. I believe General Vorobyev's point, by way of contrast, was that, in the case of the Persian Gulf war, Saddam Hussein's army was rendered irrelevant by a superior enemy *instrumentality* of warfare.

tactics." He further volunteered, as "one instructive lesson from this war," that "an army that cannot correctly predict new phenomena is a prisoner of outdated stereotypes and will inevitably suffer defeat."

General Vorobyev suggested that the main feature of Desert Storm was that "a great deal of what happened was accomplished for the first time." He noted in particular the use of space-based reconnaissance and navigation systems, which "worked for the troops right down to tactical elements"; low-observable technology in the F-117; airborne radar surveillance by JSTARS for locating enemy targets on the ground and directing air strikes against them; the intelligent integration of air and land activities toward a common goal; and the transformation of electronic warfare systems from a supporting function to an "actively offensive role."

In amplifying on the unique elements of Desert Storm, General Vorobyev underscored "the decisive role of fire power [he may as well have said air power] in destroying the enemy." This, he said, "has never been demonstrated so clearly in any operation in the past." He saw it as "significant that . . . the 'fire phase' of the operation lasted longer than troop actions on the ground It became a prolonged 'fire strike,' as a result of which Iraq's defenses were so shattered that there was no need to execute an assault to break through fortified positions," since the coalition's ground forces were free to press into Kuwait and consolidate the victory made possible by the air campaign.

Perhaps in silent acknowledgment of the ramifications for Russian and Commonwealth command and control, General Vorobyev praised the coalition's "combination of the principle of centralization and a certain degree of independence in decisionmaking with respect to combat missions by the commanders of various groupings." Hitherto, the Soviet military's approach has been *all* centralization.

In a final comment on the big-picture teachings of Desert Storm, General Vorobyev wrote that "the war shook with renewed vigor the tired old stereotypical notions about the nature of modern combat." He stated that "its results may be evaluated in different ways, but its obvious lessons must be taken into account. Chief among these is that *it is imperative to carry out a prompt and fundamental review of existing ideas and propositions in the field of tactics* [emphasis added] and to cast aside more boldly and decisively all that is obsolete, outdated, and musty among our combat techniques drawn from the attributes of the two world wars. Past combat experience should not be slighted, but neither should it be held in a kind of reverence."

General Vorobyev's article typifies the level of analysis and intellectual caliber of the best Russian commentary that has thus far been forthcoming on Desert Storm. It ended by stressing that Iraq's defeat was not caused by "any weakness in weapons or combat equipment, but by habit and dogmatism and stereotype and conventionalism in the leadership of troops And this is a graphic lesson for everybody. *This includes our armed forces*" [emphasis added]. Not so long ago, such words from a Russian general would have been heresy.

The remainder of this report will attempt to highlight the main implications that Russian military thinkers *appear* to have drawn from the Gulf experience to date. For reasons described at the outset, I am loath to call these "lessons learned," since that would imply that such conclusions have been widely accepted, understood, assimilated, and given practical application. In some cases, we lack enough evidence to make any such categorical judgment. In others, by far the majority, we *know* that the Russians are still in a sorting-out mode.⁷

With these qualifications in mind, the discussion below will etch out some of the key inferences from the war that Soviet and Russian commentators have *spoken* to directly. It will then, in more speculative fashion, itemize some inferences they *may* be making in private, even if they have not done so openly for reasons of embarrassment or known weaknesses in their combat repertoire.

ACKNOWLEDGED INFERENCES FROM DESERT STORM

Thus far, Soviet analysts appear to have drawn the following broad conclusions from the Gulf experience, among others that may remain in various stages of gestation:

The nature of modern war has changed radically from what seemed commonplace only a few years ago. This insight was partly reflected in General Vorobyev's comments about the increased importance of fire power over ground maneuver and about the associated impact of new technologies in changing the face of battle. But it was most vividly captured in a vision of future war offered by Major General Vladimir Slipchenko, a military scientist from the General Staff Academy, during a visit to the United States shortly after the war had ended.

⁷According to Air Vice Marshal R. A. Mason, RAF (Ret.), who got it first hand from senior military contacts in Moscow, no authoritative analysis of the Gulf war had been distributed to subordinate units by the High Command even as late as November 1991. Letter to the author, February 10, 1992.

General Slipchenko began by noting that when advanced-technology weapons are expended on a large enough scale, as they were in the Gulf, "these weapons will create a new revolution in military affairs. Large groups of military units may not be needed in the future." General Slipchenko added that there would be "no front lines or flanks" in future wars and that enemy territory would instead be divided "into targets and nontargets. War will involve the massive use of technology and will be over quickly, the political structure will destroy itself, and there will be no need to occupy enemy territory."⁸

To be sure, Slipchenko may have been a bit premature in heralding the obsolescence of ground operations altogether. There was no shortage of contrary testimony from other quarters that the admitted effectiveness of coalition air had scarcely invalidated the continued indispensability of ground forces for securing victory. Most experts, however, seemed ready to accept that Desert Storm had presaged a fundamental shift in the relative importance of air and land operations. Rear Admiral V. Pirumov perhaps best reflected this in pointing out that modern electronic warfare means and precision munitions had now made it possible "to decide the outcome of war without ground invasion" by relying on "a surprise assault by air attack forces." In this new image of war, he observed, it was possible also to anticipate a considerable reduction in friendly casualties, since "ground forces are put into action only when air superiority has been gained and the success of the operation guaranteed."⁹

Air power may still not be able to win wars by itself, but it has become the decisive force element permitting the attainment of victory with a minimum of friendly losses. This theme was most forcefully articulated in the context of the Gulf war by General Malyukov of the Soviet air force. It has been expressed by other Russian officers as well, however, including some from services other than the air force. The General Staff's initial assessment of Desert Storm, for example, pointed out that the coalition's command element "counted on aviation . . . to create conditions for the conduct of an air-land operation to

⁸"Soviet Officers' Visit to Army War College," unpublished SASONET report from the Soviet Army Studies Office (now Foreign Military Studies Office), Fort Leavenworth, Kansas, March 25, 1991. Slipchenko later amplified on this in an article in which he asserted that the Gulf war was not conducted "according to the classical principles of past wars" and, as such, revealed some of the emerging elements of future wars. See V. Slipchenko, "Whoever Shoots First Will Die Second," *Komsomolskaia pravda*, August 13, 1991.

⁹Rear Admiral (Ret.) V. Pirumov, "The Two Sides of Parity and Defense Sufficiency," *Voennaia mysl*, No. 2, 1992, p. 26.

liberate Kuwait with minimal losses" and that its efforts in this respect "were wreathed in success."¹⁰

Ironically, one of the most explicit statements affirming the newly emergent dominance of air power was advanced by a Soviet *naval* writer even before General Malyukov had been heard from. Captain First Rank K. Kzheb reported that the concept of operations underlying CENTCOM's campaign plan envisaged the extended "conduct of only an air war," followed by the liberation of Kuwait and the defeat of the Iraqi army by ground forces only *if* the war were to continue into Iraq after Kuwait had been retaken.¹¹

Kzheb added that "the primary stake in the war was placed in the allies' massive use of their air power to keep losses on the ground to an absolute minimum." The immediate goal, he said, was to "disarm, blind, deafen, and decapitate the enemy from the very outset" so as to permit an early achievement of control of the air. With this accomplished, allied air power could then be applied at will to destroy systematically the Iraqi strategic infrastructure and "isolate the area of upcoming combat operations, along with the concurrent destruction of Iraq's troops and military equipment in it."

In assessing the coalition's air accomplishments, Kzheb noted that in the first 24 hours of the war, 95 percent of Iraq's air defense radars were disrupted, along with a neutralization of Iraq's SAMs and command and control network and a bottling up of the Iraqi air force on the ground. During the second 24 hours, he said, air superiority was established by the coalition. He further noted that in the first two weeks of the air campaign, 25 of 44 Iraqi main airfields were "completely put out of action," with the rest being damaged or otherwise suppressed. That, along with the lethal effectiveness of the coalition's fighter sweeps and combat air patrols, drove the Iraqi air force's sortie generation down from a daily average of 40-50 during the first week to only three at the start of the third week.

Kzheb concluded that an analysis of the first three weeks of the war indicated that "the views of the command authorities of the leading

¹⁰"Soviet Analysis of Operation Desert Storm and Operation Desert Shield," p. 45. Similarly, two air defense officers wrote that "by charging the coalition's air component with the main mission of achieving the objectives of the operation, the allied command succeeded in limiting losses of its own ground forces." Lieutenant Colonels A. Manachinskii and V. Chumak, "The Echo of Desert Storm," *Vestnik protivovozdushnoi oborony*, No. 9, September 1991, p. 70.

¹¹Captain First Rank K. Kzheb, "Naval Forces in the War Against Iraq: The First Results," *Morskoi sbornik*, No. 2, February 1991, pp. 59-63.

Western countries, and of the United States above all, have been confirmed regarding the possible nature, scale, and operational methods of military forces” He added that the model of force employment so effectively demonstrated by CENTCOM “will constitute the basis for future combat operations through the 1990s.”¹²

Major General Slipchenko of the ground forces was equally adamant that the air campaign had swung the outcome from the opening moments. Indeed, he even suggested that the war had cast serious doubt on the continued relevance of ground forces as traditionally understood and constituted. “The Gulf war,” he flatly stated at the National Defense University in March 1991, “supports the fact that *air strikes can by themselves form the basis of victory* [emphasis added]. Such attacks can now achieve both political and strategic goals.”¹³ General Slipchenko stated his belief that the United States would still have won the war “using past tactics,” but that this “would have taken more time” and, presumably, cost more in terms of casualties. In Desert Storm, however, he maintained that “*air power was responsible for the victory* [emphasis added]” because “air superiority altered the complexion of the war from the very outset.”¹⁴

In related conversations at the U.S. Army War College, General Slipchenko showed special respect for the intensity of CENTCOM’s air operations tempo throughout the strategic air campaign: “First and foremost was your ability to fly so many sorties per day. Never in our wildest calculations did we believe you could sustain so many sorties logistically and overcome pilot fatigue. Sustaining large-scale air operations over a month and a half, where pilots flew two and a half missions a day, is incredible.” He added that the only mistake the coalition made was “not to liquidate Saddam Hussein.” Air superiority, he said, “was won in the first few minutes. Thereafter, it became

¹²As for other “lessons” beyond the main one etched out above, Kzheb noted how the war seemed to be clearly demonstrating “the role of professionalism in mastering military equipment; the importance of the rear, especially logistic and transportation support; the importance of intelligence; the effectiveness of electronic warfare assets; the prospects for precision long-range cruise missiles; the influence of air superiority on the course of modern warfare; the effectiveness of stratagem, especially covertness, deception, and disinformation; and the difficulty of combating mobile intermediate and lesser-range missile launchers.”

¹³Major General Slipchenko of the Soviet General Staff Academy Answers Questions During a Working Session Before the Start of the NDU Conference,” unpublished report on SASONET, Fort Leavenworth, Kansas, March 28, 1991.

¹⁴In a similar vein, Slipchenko later wrote that the Gulf war was not conducted “in accordance with classical laws of wars of the past.” He added that in future wars, “the main role will be played not by infantry but by high-accuracy weapons.” “What Will There Be Without Icons?” *Voenno-istoricheskii zhurnal*, No. 6, 1991, p. 70.

a war of technology, something Hussein did not have We watched CNN and saw your weapons' accuracy."¹⁵

As for the Iraqi air force's eventual escape into Iran, General Slipchenko said: "We estimated the average life span of an Iraqi aircraft from takeoff to shootdown in the Gulf war to be five minutes. When ordered to fly, the Iraqi pilot had three choices before him: First, to fly and be shot down; second, to return to home base and be tried before an Iraqi tribunal for cowardice; and third, to fly to Iran. The pilot had literally minutes to make this decision, if he had not made it already before takeoff. Most made the decision to fly to Iran."¹⁶

To be fair to the evidence, it bears repeating that this recognition of the expanded importance of air power has not been uniformly embraced by the High Command. Large pockets of opinion continue to share General Bogdanov's view that Desert Storm validated the "determining role" of ground forces in modern war. Yet even though the jury remains out on the extent to which Desert Storm confirmed a heightened role for air power in Russian eyes, it is a fair conclusion that the war "shocked Soviet High Command military planners" and that its "lethality and swiftness decimated stereotypical thinking on warfare, especially the outline of the initial period of war and the conduct of operations."¹⁷

The Soviet IADS concept has vulnerabilities. Since the Gulf war, Soviet officials have conceded that their Integrated Air Defense System (IADS)—long the centerpiece of PVO—may harbor some fatal weaknesses in both structure and concept. These include, most notably, the susceptibility of its key battle-management radars and command and control nodes to electronic suppression and destruction by fire.

This has long been a sore subject for the Soviets. Immediately after Israel destroyed Syria's SA-6 sites in the Beka'a Valley in two successive raids in June 1982, Marshal Ogarkov himself made a beeline to Damascus to conduct an on-site assessment of what had gone

¹⁵Unpublished bulletin on SASONET, Fort Leavenworth, Kansas, March 26, 1991. The actual numbers of daily combat sorties flown by allied pilots in Desert Storm most likely varied considerably, with the F-117's utilization rate at the lower end and the A-10's at the higher end.

¹⁶Unpublished bulletin on SASONET, Fort Leavenworth, Kansas, March 27, 1991.

¹⁷Lieutenant Colonel Timothy L. Thomas, "The Soviet Military on Desert Storm: A Preliminary Report," unpublished paper, Foreign Military Studies Office, U.S. Army Combined Arms Command, Fort Leavenworth, Kansas, August 1991, p. 1.

wrong. Because Moscow withdrew most of its military advisers from Iraq after Hussein's seizure of Kuwait, the High Command will lack comparable first-hand information about the failures of Iraq's air defense network. Nevertheless, there have been enough expressions of concern over the poor performance of Iraq's IADS to place this issue high on the list of Moscow's priorities.¹⁸

Tanks are an endangered species when the other side enjoys control of the air. Many Soviet military writers were skeptical that coalition air power would be capable of destroying Iraq's dug-in armored forces in and around the KTO, let alone on the march once ground operations commenced. They learned differently during the last two weeks of the war. As a result, Russian defense experts are increasingly advocating a sharp break from the armored warfare tradition that has dominated Soviet military strategy since World War II. In an interview shortly after the August coup, the new commander in chief of the air force, Colonel General Deinekin, flatly asserted that "the tank inventory of 40,000 vehicles in our country has become pointless in modern war, since those tanks would be burned by helicopters within hours. Confirmation of my words is offered by the Desert Storm operation."¹⁹ It will be interesting to watch the evolution of this dawning awareness in the post-breakup Russian defense debate.

Quality beats quantity any day, but there has to be enough of it for its influence to be felt. In a prominent speech at the 19th All-Union Party Conference in 1988, Gorbachev vowed that Soviet force development would henceforth concentrate on "qualitative parameters" rather than on the continued amassment of ever greater numbers of weapons.²⁰ His injunction was quickly endorsed by the High Command and the defense industry. The problem, though, was that it called upon the USSR to compete with the West in a domain in

¹⁸Following a June 1991 guest lecture to an audience of 150 General Staff officers ranging from colonel to four-star general, the first question put to Air Vice Marshal R. A. Mason, RAF (Ret.), concerned what he would do to improve Soviet air defenses in light of the disappearance of the USSR's western glacis and the failure of Iraq's defenses in Desert Storm. Letter to the author, February 10, 1992.

¹⁹Interview by Vladimir Shelektov with Colonel General Piotr Deinekin, "Air Force Commander in Chief Piotr Deinekin: The Air Force Will Spread Its Wings," *Rossiiskaia gazeta*, September 5, 1991, p. 2.

²⁰In expanding on this pronouncement of Gorbachev's, then-Defense Minister Dmitri Yazov pointed out that "emphasis on quantitative indicators is becoming not only increasingly costly, but less effective in both military-political terms and purely military terms." Army General D. T. Yazov, "The Qualitative Parameters of Defense Building," *Krasnaia zvezda*, August 9, 1988.

which its R&D and production base have long been at a pronounced comparative disadvantage.²¹

How Russia's defense industry will reorient itself in the face of its current funding crisis is anyone's guess at this point. However, when asked about possible imbalances between the American and Soviet force postures, General Vladimir Lobov, who served as Chief of the General Staff for three months following the failed August coup, said he was "worried least of all by the quantitative side of this question. What difference does it make if we make a few more cuts than the Americans in some areas? I think we need to pay greater attention to the quality of equipment and armaments. The Gulf war demonstrated that victory in modern warfare can be secured not only by quantity but mainly by quality. We must recognize this and learn from it."²²

That statement would be unremarkable were it not for the fact that it emanates from a military culture that has long paid lip service to "quality," yet that in the main has fallen back on numbers and brute-force solutions for reasons having to do with the systemic inefficiency forced upon the Soviet defense industry by communist rule. Only recently have Russian defense experts fully awakened to a recognition of the path they need to follow in this regard—and to a realization of how far they have to go—to remain credible as a military power in the 21st century. In considerable part, this growing awareness has resulted from the many face-to-face interactions that Soviet industry officials have had with their Western counterparts over the past few years, along with hands-on exposure to current Western military technology and hardware. It was Desert Storm, however, that most forcefully drove home what "quality" really means in the defense arena. It also underscored the magnitude of the challenge the Russians face in seeking to emulate what they have seen in the West.

With regard to the proper mix between quality and quantity, Russian commentators have tended to argue that it depends on the mission at hand. They noted, for example, that a few special-purpose munitions like the GBU-28, which were developed in a hurry and rushed to the

²¹A good analysis of the structural problems affecting the pursuit of this goal that the Russian High Command faces due to the impaired economy it has inherited is presented in Arthur J. Alexander, *Perestroika and Change in Soviet Weapons Acquisition*, RAND, R-3821-USDP, June 1990.

²²Interview by N. Burbyga with Army General V. N. Lobov in *Izvestiia*, September 2, 1991. In this interview, Lobov also took to task the "many" other Russian military professionals who, in his view, had "regrettably" downplayed the Gulf war as "merely an episode."

theater for a specific purpose, were more than adequate to yield pivotal results against high-value targets that really mattered. Yet they also recognized that the broader air campaign against enemy airfields, bridges, and tanks could not have been conducted effectively without ample stocks of garden-variety laser-guided bombs (LGBs). All in all, however, defense experts in Moscow (along with many former skeptics in the West) were convinced beyond doubt that high technology is a force multiplier *par excellence* when intelligently applied.

Coalition warfare works if properly conducted. As the senior partner for almost four decades in a military alliance that constantly raised nagging questions about its combat effectiveness and political reliability, the Soviet High Command must have watched the seamless performance of the coalition in Desert Storm with painful memories of its own difficulties in managing its reluctant Warsaw Pact allies in Eastern Europe. The new Russian government has shown a continued interest in coalition management in connection with how the shaky Commonwealth of Independent States, or parts of it, might preserve some semblance of a security interrelationship.

In this regard, a military writer for *Novosti* suggested that "an alliance patterned on the Warsaw Pact might be formed," in which "Russia could be cast into the kind of role the Soviet Union once played in the Warsaw Pact, while the armies of the constituent republics would act as allied forces."²³ Similar thoughts have no doubt occurred at higher levels of the defense establishment. As one indicator, former Defense Minister Yazov expressed special admiration for General Schwarzkopf's prowess as coalition commander. He said he felt that "there is a lot we can learn from the . . . coordination of states with different national languages and weapons in executing a common goal. I can tell that great skill had to be shown by General Schwarzkopf and his staff officers in the simultaneous control of U.S., French, Syrian, and Egyptian troops."²⁴

This note of praise was no idle comment on Yazov's part. Because they themselves have done less well at such relationships and will have to do better in the future should the Commonwealth evolve into any sort of serious security confederation, Russian defense planners are looking with interest at such questions as how the Air Tasking

²³Vitaliy Pogrebnikov, "Who Will Have His Finger on the Button?" IAN press release, Moscow, September 1991.

²⁴Quoted in "Soviet Defense Minister Praises Schwarzkopf," *Washington Times*, March 21, 1991.

Order was promulgated and what went on by way of interalliance coordination in CENTCOM's air operations planning center in Riyadh. The rub, of course, is that any realistic prospect for such an integrated defense scheme for the CIS is becoming more remote with each passing day. As political analyst Andrei Kortunov recently concluded on this point, "a new NATO-type system of collective security, which was proposed by Russian President Boris Yeltsin in December 1991 and persistently has been pushed by the Commonwealth military leaders, does not seem workable. It is impractical not only because of Ukraine's and Azerbaijan's quests for uncompromised independence in military decisions; it is also impractical because of the diverging security interests of various CIS members, which are tearing apart the 'common defense space' of the former Union."²⁵

Military reform will be essential for Russian forces to gain the proficiency and motivation that will be needed to extract the greatest leverage from their military equipment. Before the August coup, this was the Desert Storm-related issue that had most forcefully engaged the democratic reform movement. Leading spokesmen for that movement argued that it was inconceivable that a war of the sort waged by the coalition against Iraq could ever be successfully mounted with uneducated conscripts like Russian soldiers taken straight off a collective farm. On this point, Sergei Blagovolin cited the Gulf experience as a confirmation that it had become "simply impossible to continue to reject the idea of deep [Soviet] military reform from bottom to top." He added that the Gulf war "plays in our favor because it is absolutely clear that these sophisticated weapons can't be used with high efficiency without an adequate level of preparation of personnel, and will also demand a new kind of commander."²⁶

Before the changes in military leadership that followed in the wake of the August coup, it was common for members of the High Command, from General Moiseyev on down, to reject any suggestions of replacing conscription with a contract army. General Lobov, however, ultimately conceded that the sort of equipment employed by the coalition "can only be used by servicemen with thorough professional training." Although Lobov was careful to stress that it remained premature to speak of eliminating conscription entirely, he agreed that

²⁵ Andrei Kortunov, "Strategic Relations Between the Former Soviet Republics," Backgrounder No. 82, The Heritage Foundation, Washington, D.C., April 17, 1992, p. 2.

²⁶ Quoted in Elisabeth Rubenfien, "Soviet Military Is Shaken by Allies' Triumph Over Its Former Protege," *Wall Street Journal*, March 4, 1991.

"professionalizing the military service" had become "objectively overdue."²⁷

It was hardly by accident that this view coincided with the diagnosis and goals articulated by Marshal of Aviation Shaposhnikov, the Commonwealth's military commander. In his earlier incarnation as air force commander, Shaposhnikov had argued repeatedly for reforms along the lines suggested by Blagovolin. He has since promised a program to reduce the length of obligatory service and to supplement the draft with a contract system allowing for professional cadres at competitive pay levels.²⁸ As this process unfolds, the air force will probably maintain the inside track in pressing to acquire and retain capable and technically skilled manpower, both because of its high demand for such manpower and because of Shaposhnikov's presumed interest in seeing to the continued needs of his former service.²⁹

POSSIBLE INSIGHTS BEING PONDERED IN PRIVATE

Few Russian commentators have suggested openly that Soviet forces would have performed as poorly as Saddam Hussein's did against superior Western training, tactics, and technology. Yet it is hard to believe that many are not wondering privately to what extent Desert Storm constituted at least a partial mirror of what might have happened to Soviet forces had there been a NATO-Warsaw Pact war.

Granted, the differences between the military balance that obtained between Iraq and the coalition on the eve of Desert Storm and the NATO-Warsaw Pact confrontation that prevailed in Central Europe throughout the Cold War are vast in both magnitude and scale. So are the contrasts between the circumstances that characterized the Persian Gulf war and the political, operational, and geostrategic setting that would have shaped the canonical "war in Europe." These factors alone should suffice in highlighting the risks of trying to speculate about how the Soviet military would have fared against

²⁷Interview by Colonel O. Vladykin with Army General V. N. Lobov, "Military Reform: The Elimination of the Draft Must Be Rejected," *Krasnaia zvezda*, September 10, 1991.

²⁸See "USSR Defense Ministry Warns . . . Reform of USSR Armed Forces Will Begin in First Half of 1992," *Komsomolskaia pravda*, September 24, 1991.

²⁹Shaposhnikov has offered assurances, however, that he will harbor no favoritism in this respect: "I would like to warn everybody . . . that because a pilot has come into the leadership, it does not mean he thinks that pilots are up there with the gods . . . Of course, I like airmen, but all the same there has to be fairness in everything." Interview on Radio Rossiya, September 18, 1991.

NATO by looking for answers solely in the events that transpired in the Gulf.

Nevertheless, Desert Storm saw long-respected Western technology, operator proficiency, and command flexibility go head to head against late-generation Soviet weapons and, despite insistent Soviet denials, some key elements of Soviet force employment practice. This was particularly so with regard to coalition attacks against Iraq's air defenses and airfields during the opening phase of the war, as well as against Iraqi armor once the ground campaign neared. For their part, the armed forces of the former Soviet Union have not even *developed* many of the precision weapons and computerized bombing systems that made the coalition's air campaign such a success.

For these reasons and others, Russian defense planners have good grounds on which to be giving careful thought to those aspects of the Gulf experience that have a direct bearing on Russia's security, yet about which they may prefer not to say much for the time being. The following may reflect some such unspoken concerns that Russian defense professionals are currently debating behind closed doors:

Air-to-air fighter employment tactics that are dominated all the way to the conversion phase by ground-controlled intercept (GCI), or any other offboard command and control, are a losing proposition. This insight is not a novel one to the Soviet tactical air community. As early as 1975, squadron pilots were periodically heard to grumble that "it is all very well that GCI operators should assist us fighter pilots, but one should not rely on their support for everything."³⁰ During the years of stagnation, however, the Soviet military bureaucracy was incapable of accommodating to such complaints. As a result, very effective and capable Soviet equipment was needlessly hobbled by a rigid operating philosophy that denied Soviet pilots any latitude for exercising initiative in a dynamic tactical situation.

The 35-0 shutout achieved by the coalition in aerial combat against Iraq was but a replay of the 85-0 rout the Syrians suffered over the Beka'a at the hands of the Israeli air force—and for the same operational and tactical reasons. As in the case of the Beka'a Valley engagements, the Iraqi air force was deprived of its command and control from the outset. In almost all engagements, Iraqi pilots failed to conduct any serious counteroffensive maneuvering and showed a complete incapacity to take care of themselves once committed. Most

³⁰Captain A. Potemkin, "Respond to the Situation," *Aviatsiia i kosmonautika*, No. 12, December 1975, p. 15.

were downed by unobserved shots. This lopsided outcome starkly dramatized the differences between Soviet and Western air combat practice. As a Pentagon official remarked afterwards: "If the Soviets didn't like Air-Land Battle and they believed in centralized command and control, you can forget it now. They are going to learn something new out of that."³¹

This is not to deny that fighting a cohesive and successful air battle requires careful coordination from above. Such command and control platforms as AWACS and JSTARS contributed heavily to the situation-awareness advantage and resultant combat edge shown by the coalition's fighter pilots in Desert Storm. They also played a crucial role in preventing any accidental blue-on-blue air combat engagements. That said, however, it remains a proven hallmark of Western tactical air practice that pilot initiative must be given free rein within tactical confines to extract the fullest leverage from today's highly capable fighter aircraft, avionics, and weapons. This is a point that the Soviet air force has resisted acknowledging until quite recently.

Few in the West ever seriously doubted that the Soviets all along had a pilot cadre with the requisite potential to become superb aerial tacticians if subjected to the right kind of training. The rigidities and deficiencies of past Soviet air combat practice solely reflected an arbitrarily imposed *system* of doing business, not any inherent shortcomings in the Soviet fighter pilot or his equipment.³² Today, with these inhibitions on pilot independence largely gone and with a new leadership in place, air force elements of the former USSR are now in a position to alter their operational routines in a fundamental way.³³

³¹Quoted in John D. Morrocco, "War Will Reshape Doctrine, But Lessons Are Limited," *Aviation Week and Space Technology*, April 22, 1991, p. 43.

³²Persuasive evidence of this can be found in the rapid devolution in the operational style of the East German air force following Hitler's defeat from the proud example of Adolf Galland's Luftwaffe toward a mirror image of the far more rigid and scripted practices of the Soviet air force. A recent first-hand account of EGAF fighter operations following the opening of East Germany noted that "even training flights [are] not exempt from the trend toward regulating even the most trivial matters. Thick manuals contain all the maneuvers which may be combined for a mission. But curiously enough, the best tactics for mission fulfillment are neglected in favor of detailed descriptions of loops, turns, and so on." These and related details on how the EGAF fighter pilot was systematically forced into the mold of his Soviet counterpart are presented in Karl Schwarz, "GDR Air Force Facing Changes," *Flug Revue* (Stuttgart), May 1990, p. 2.

³³This is the change that some Western observers erroneously claimed years ago had already taken place in Soviet tactical air training. See, for example, Captain Rana J. Pennington, "Closing the Tactics Gap," *Air Force Magazine*, March 1984, pp. 83-88, and, by the same author, "Another Look at the Soviet Fighter Pilot," *Air Force Magazine*, April 1985, pp. 83-93. Such analysis confused what Soviet fighter pilots

Beyond that, Russian fighter pilots and commanders are increasingly gaining first-hand exposure to Western operational and tactical influences that may reinforce their inclinations to change. Since improving their air combat repertoire is essentially cost-free (in that it will turn largely on new *procedures* rather than on new equipment), the Russians are in a position in this area to begin almost immediately applying appropriate "lessons" from the Gulf war. For that reason, air-to-air training is an area that will bear close watching for early signs of Russian departure from past practice.

The one constraint here, possibly a serious one in the near term, entails the extent to which even seemingly "low-cost" changes in tactical training may be preempted by a diversion of already scarce operations and maintenance funds toward providing housing and other needed quality-of-life improvements for air force officers and their families. As an indication of the low baseline from which any such training improvements will have to be made, the recently retired air force deputy commander, Lieutenant General Anatoly Borsuk, noted in the summer of 1991 that the average Soviet pilot's annual flying time was two and a half times below the air force's required minimum and 3-4 times less than that for combat pilots in the United States.³⁴

The Soviet concept of offensive air operations is past due for an overhaul. In consonance with classic Soviet combined-arms planning for war in Europe, the "air operation" component of Moscow's campaign concept for a Theater of Military Operations (TVD) envisaged a two-to three-day "air preparation" against NATO's airfields and nuclear forces conducted simultaneously with a massive armored and mechanized infantry push on the ground. The results of allied air operations in Desert Storm suggest that this notion was overly optimistic by a considerable measure.

advocated with what they were actually permitted to do. An informed corrective was the more recent complaint by the chief test pilot of the Mikoyan Design Bureau about how too many Soviet air force unit commanders, while "remaining prisoners of old concepts and directives, still protect themselves with slogans about . . . flight safety while shifting the actual combat training of pilots to the back burner." Valery E. Menin, ii, "On the Back Burner, Why?" *Aviatsiia i kosmonavtika*, No. 2, February 1991, pp. 4-5.

³⁴Interview with Lieutenant General of Aviation Anatoly Borsuk, "Combat Training: Prospects for Improvement," *Aviatsiia i kosmonavtika*, No. 7, July 1991, p. 3. Colonel General Deinekin, the air force commander in chief, later noted that the "scientifically sound number" of desired flying hours is 180-200 hours per year. Interview by Yelena Agapova with Colonel General Deinekin and USAF Chief of Staff General McPeak, "The Skies Are the Same—the Concerns Different," *Krasnaia zvezda*, October 26, 1991.

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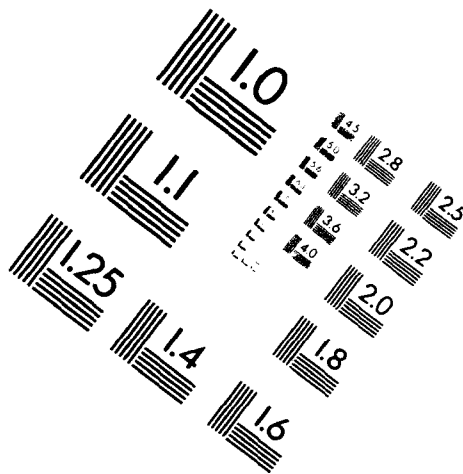
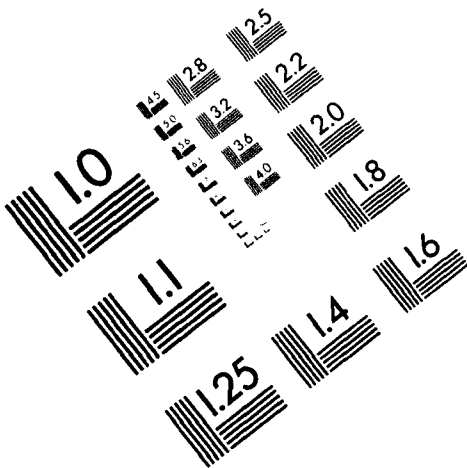
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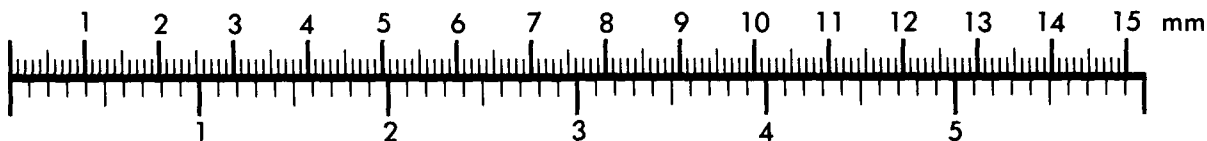
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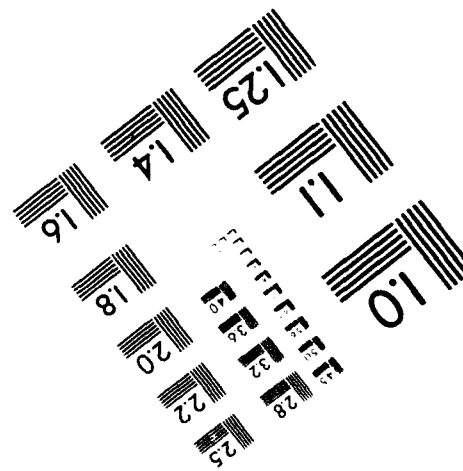
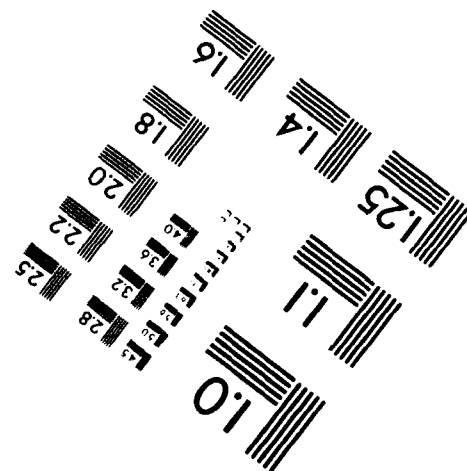
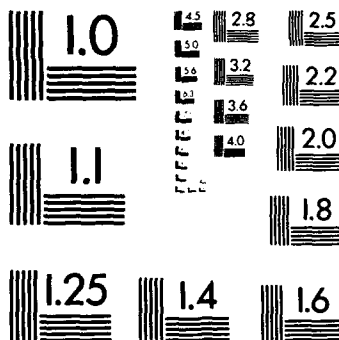
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Despite the early achievement of air superiority, allied counterair operations took more than two weeks to fully neutralize or destroy all Iraqi time-urgent targets. Many fixed and mobile Scuds were *never* found, despite good prewar intelligence and intrawar targeting. These surprises should lead Russian defense planners to serious second thoughts about the ease with which the Soviet armed forces would have been able to neutralize NATO's nuclear assets through conventional air power.

As for the airfield attack problem, the tactical air forces of the former USSR still possess few of the precision standoff munitions that figured so prominently in the coalition's attacks against Iraqi aircraft shelters and weapons storage facilities. Even had the Soviets been better endowed in this respect, NATO's defensive counterair forces would have performed far more effectively against Soviet strikers, including under degraded conditions, than the Iraqi air force did in Desert Storm.

As observed by some well-informed U.S. specialists, "the Soviet concept of a two- to three-day air operation to replace the initial nuclear strike [in Warsaw Pact offensive plans against NATO] will need a thorough relook."³⁵ These analysts noted that Moscow's expectation of what could be accomplished in such an operation was "not realized" by coalition air power in Desert Storm—even with far more capable equipment and combat support assets than the Soviets would ever have been able to marshal against NATO.

It remains an open question how the High Command will respond to this assessment. Part of the problem relates to the dilemmas faced by Russian defense planners as they find themselves driven by changing circumstances to think more and more in other than threat-specific terms. With NATO no longer the central arena for which the High Command must plan, it may be that the General Staff will become more inclined to disaggregate air operations from planning for ground maneuver and abandon its assumption that air operations must necessarily take place above the main axes of a ground push into enemy territory. Instead, the Russians may become disposed to think increasingly about the merits of an extended air campaign of a month or more against a nonspecific enemy, much like what was demonstrated by the coalition in Desert Storm. This is not a subject that Russian analysts have had much to say about. But there is good rea-

³⁵Initial thoughts on the impact of Desert Storm on Soviet military thought offered by Lieutenant Colonel Lester Grau, Jacob Kipp, and Graham Turbiville of the Soviet Army Studies Office (SASO), Fort Leavenworth, Kansas, January 25, 1991.

son to believe that it will warrant close watching as the Russian air force seeks to regain its bearing and resume a normal course.

Top-down centralization remains critical to effective combat operations. Yet centralization without provision for flexibility in execution is a recipe for disaster. General Vorobyev touched on this when he spoke of the importance of a more balanced mix between top-level control of planning and flexibility in implementation. During the opening days of Desert Storm, the United States and its allies carried out a successful air campaign much along the lines of the classic Soviet air operation, yet "utilizing a loose coalition and a more decentralized control system. That is, the kind of tight, centralized control with continuing direction of strikes by airfield ground controllers was not present."³⁶ This is unlikely to have escaped the attention of Russian military planners.

For the General Staff to develop a combat repertoire aimed at providing greater capacity for improvisation at the unit level without awaiting higher-headquarters guidance will require, first and foremost, an ability on the part of senior leadership to delegate authority downward into the ranks. This, in turn, will require a level of trust in the professionalism and good judgment of middle-level officers that has not been a norm in Soviet military practice until now. Hitherto, the High Command has preferred to let its pawns remain pawns and to leave the thinking and decisionmaking to higher command echelons.

Fortunately for the Russian and Commonwealth defense establishments, Air Marshal Shaposhnikov has supported a clean break from the former shackles on operator adaptability that restricted the fullest exploitation of Soviet hardware. Since this is another area of potential change in Soviet military style that will not require major new fiscal outlays beyond normal operations and maintenance costs, it is likewise one in which we may expect to see early signs of adjustment to the Gulf's "lessons"—and to the fortuitous collapse of communism.

Hardened aircraft shelters no longer shelter. This goes as well for command posts, weapons storage bunkers, and all other critical assets for which the Soviets sought protection from conventional ordnance through physical reinforcement against weapons effects. Along with the USAF and other NATO air forces, the Soviets moved vigorously into a shelter construction program at their forward operating

³⁶Grau, Kipp, and Turbiville, SASO roundtable, Fort Leavenworth, Kansas, January 25, 1991.

bases in Europe after the Israeli air force in 1967 virtually annihilated the Egyptian and Syrian air forces on the ground in less than an hour. The resultant hardening of Soviet and Warsaw Pact aircraft in the forward area made airfield attack a daunting challenge for NATO, since nonprecision conventional bombs lacked the accuracy for sure kills against individual shelters and also required high-angle dives to achieve maximum effectiveness—which put the attacking aircraft in the heart of defending SAM and AAA envelopes for perilously long seconds. As a result, the best that NATO could generally hope for was to suppress operations at enemy airfields by attacking runways, taxiways, and other exposed targets such as refueling pits.

Today, with standoff weapons like the GBU-15 and other LGBs used in Desert Storm, Western attack aircraft have convincingly demonstrated an ability to remain outside the lethal envelopes of enemy short-range air defenses and to engage shelters directly, with consistently effective results. While he was still commander in chief of the Soviet air force, Air Marshal Shaposhnikov indicated his concern over this prospect when he asserted that trends in modern technology “tell us that the warring sides will strive to do the greatest damage to the enemy’s aviation at the very beginning of hostilities.” This led him to conclude that “the solution lies in increasing the survivability of aircraft in the air and on the ground.”³⁷

Widely publicized photographs of demolished MiGs inside Iraqi shelters must have lent a powerful impetus to Moscow’s felt need to begin thinking about ways of escaping this problem, perhaps through such alternatives as mobility or better active defense. Unlike the issues touched on above, dealing with this Gulf “lesson” will not occur either quickly or cheaply for Russian defense planners. There can be little doubt, however, that it lies at the forefront of their attention.

Stealth is the wave of the future. As noted earlier, there was a tendency in some Soviet circles after the Gulf war ended to deprecate the tactical advantages offered by the F-117’s low-observability features during the earliest days of Desert Storm. Mikoyan’s chief designer,

³⁷Interview by Nick Cook, “The Bear Still Has Claws,” *Jane’s Defense Weekly*, September 8, 1990, p. 419. To be sure, an important qualification must be entered here. As Group Captain Andrew Vallance, RAF, has reminded me, “the Gulf war showed . . . that air bases are very difficult to close even when you have air supremacy and that they can be opened again in a comparatively short time. One can certainly take out hardened aircraft shelters if one can achieve control of the middle and upper air, but the former depends very much on the latter. If the enemy is able to deny the middle or upper air, then air bases become hard targets to take out.” Letter to the author, February 28, 1992.

for example, suggested that the F-117 survived passage through heavily defended airspace in the Baghdad area only because of jamming support and precursor attacks provided by other allied aircraft. Likewise, Colonel General Malyukov, the Soviet air force's chief of staff, opined that "had the F-117 been employed in the European theater over uneven terrain and against a sophisticated air defense system and powerful, fully functioning electronic countermeasures, it would certainly not have been able to 'wander about' as freely as it did over the desert."³⁸

As for the ability of current *Soviet* air defense radars to detect stealth aircraft, the PVO general responsible for that function has claimed confidently that "we will see the 'invisible ones' on our screens We have established that some of our radars are capable of detecting stealth."³⁹ Similarly, a Soviet industry official at the 1991 Paris Air Show suggested that the radar aboard the MiG-31 had been expressly developed with a view toward dealing with small targets, making it possible to conclude that "the problem of stealth is solved, but at a shorter range."⁴⁰

Such assertions are little more than nervous whistling past the graveyard. In assessing them, it bears remembering that Stalin dismissed the atomic bomb also until he got one of his own. The susceptibility of current and projected American stealth technologies to detection by a sophisticated and determined defender is a complex question that lies beyond the scope of this report. The more astute Russian defense planners and industry designers, however, will not have failed to note this comment by USAF Chief of Staff General McPeak: "It will be difficult for the [U.S.] Air Force ever again to buy combat aircraft that do not incorporate low observables. It would seem obvious to me that other air forces would draw the same conclusions."⁴¹

³⁸"An Unusual Talk with the Chief of the Air Staff," *Krylia rodiny*, November 1991.

³⁹Interview by Lieutenant Colonel O. Falichev with Lieutenant General G. Dubrov, "Networks for the 'Invisible Ones': Are Our Radars Capable of Detecting 'Stealth' Aircraft?" *Krasnaia zvezda*, January 30, 1991.

⁴⁰Deputy Minister of Radio Industry Alexander Reutov, quoted in Douglas Barrie, "Soviet Zhuk IFF System Could Oust Odd Rods System," *Flight International*, June 28-July 2, 1991, p. 30. As if to seek confidence from it, the Soviet press also cited what it called an "unusually frank" comment by General McPeak following his return from a trip to the USSR that the B-2 "is possibly not invulnerable to Soviet air defense systems." See "Pulse of the Day," *Pravda*, October 11, 1991.

⁴¹Quoted in Joe West, "McPeak Impressed with Post-Coup Soviet Military," *Air Force Times*, October 21, 1991, p. 6.

One advantage the Russians have with respect to the stealth challenge is that the Cold War's demise has taken much of the urgency out of their need to respond to it. For this reason, the aircraft industry in the former USSR will probably show deliberate but unhurried attention toward incorporating selected stealth features into its follow-on combat aircraft.⁴² We can perhaps also anticipate more vigorous Russian efforts to identify and begin developing various countermeasures against potential enemy stealth capabilities. This latter effort will most likely be dominated by a quest for new radars and other sensors capable of unmasking low-observable aircraft.

Ground warfare has also undergone a revolution. Allied air power has rightly commanded a lion's share of the attention and credit for having produced a decisive outcome against Iraq with such a low incidence of friendly losses. Yet Russian analysts did not miss the important breakthroughs that were also registered in the performance of multinational ground units during the final four days of Desert Storm.

As the General Staff's initial assessment of the war was clear to note, "just prior to the beginning of the [ground] offensive, Iraqi forward tactical units in different sections of the front attempted to leave the positions they occupied and go into a defense in depth. However, they came under powerful allied fire strikes inflicted in accordance with the attack fire support plan, suffered significant losses of men and materiel, and lost control at the operational-tactical level." As a result, coalition ground formations were able to press their attack "without serious resistance, resulting in the achievement of rates of advance of up to 50 km per day." The General Staff's analysis concluded that the "vigor and maneuverability" of the allied combined-arms offensive forced Iraqi units into "a massive retreat along the entire front. Their actions acquired a disorganized character and essentially turned into flight."⁴³

It in no way diminishes the spectacular performance of coalition air power to note that allied ground units also excelled in completely sweeping a large and well-endowed opponent off the battlefield in a matter of hours. In the process, allied forces fought a number of high-

⁴²On this point, General Malyukov noted that "we are working on it . . . but we are not working on a combat aircraft in which all other attributes are sacrificed to stealth." Furthermore, he observed, "we find ourselves in a difficult position in funding research and development. It might be better to cut back on procurement and leave funding for R&D."

⁴³"Soviet Analysis of Operation Desert Storm and Operation Desert Shield," pp. 66-69.

intensity engagements in which they thoroughly shredded what were thought to be well-armed and well-trained Iraqi division-size formations. During these engagements, the coalition destroyed hundreds of Iraqi tanks, armored personnel carriers, and artillery tubes for the loss of only a few armored vehicles.

The effect of this performance on the Soviet High Command must have been riveting. In this regard, my colleague Richard Kugler has suggested that Desert Storm in fact "confronts the Russians not with one military revolution but with two, both of which bode ill for their traditional ways of doing business Not only has the Russian air force been exposed as underendowed, but the once-ferocious Russian army now looks like an emperor without clothes as well."⁴⁴ This implies that the General Staff is facing a force modernization agenda that goes well beyond simply dealing with the air implications of Desert Storm. Insofar as the ground phase of the war constituted a model for future contingencies in parts of the world beyond the Gulf, it means that the Russian army will need a new generation of technology and a top-to-bottom reorganization to be a serious military contender in the 21st century.

Gorbachev's defensive doctrine has been rendered obsolete by the ending of the Cold War. The "lessons" of Desert Storm may not entirely illuminate the path toward what may be needed to replace it. But the time has come to say farewell to Soviet military doctrine and strategy. The allied combat performance confirmed the Soviet military's most deeply rooted fears about the meaning of the revolution in Western technology for many time-honored Soviet war planning assumptions. This has a direct bearing on the need for doctrinal change which defense planners in Moscow face as a result of their new geostrategic situation. Gorbachev's "defensive doctrine" was accepted by the Soviet military at a time when the NATO-Warsaw Pact standoff remained a tangible reality. It was motivated in large part by a recognition that changes in the East-West conventional balance had finally presented Soviet military planners with a serious NATO counteroffensive capability to defend against. It did not mean that the Soviets had given up any of their overarching views on the role of military force in war, which, as always, was to take the offensive at the earli-

⁴⁴Personal communication, February 25, 1992.

est possible moment with a view toward achieving victory in the end.⁴⁵

Today, with the Cold War over, the Warsaw Pact gone, and NATO in search of new directions in a radically changing Europe, such thinking has been overtaken by a tidal wave of subsequent events. General Konstantin Kobets, Yeltsin's former defense chief in the Russian Parliament, has summarized the point this way: "Considerable time has passed since the adoption of the existing defensive doctrine, and the world political-military situation has changed substantial! . . . So our military doctrine must change . . ." ⁴⁶ For this reason among many others, Russian defense planning in the years ahead is not likely to be conducted, at least in any simple and straightforward way, "through the prism of the Gulf war."⁴⁷

As defense planners in Moscow struggle to adjust to the changed international landscape, they may be inclined to draw selectively from Gulf "lessons" with a view toward maximizing their flexibility and providing options across a range of contingencies. Any such application of Desert Storm "lessons," however, will most likely be geared less toward countering perceived *American* capabilities and threats than to accommodating more proximate challenges to Russian security as planners in Moscow find themselves faced with a new strategic environment whose outlines are anything but clear.

TOWARD A POST-SOVIET RUSSIAN SECURITY POLICY

Ultimately, the question of how the Russian High Command will apply its "lessons" from Desert Storm is inextricably connected with the broader question of what sort of Russian military establishment—and

⁴⁵A well-documented development of this point is offered in John G. Hines and Donald Mahoney, *Defense and Counteroffensive Under the New Soviet Military Doctrine*, RAND, R-3982-USDP, 1991.

⁴⁶Interview by V. Vernikov with Army General K. Kobets, "In the Wake of Economic Agreement, a Military Alliance?" *Izvestiia*, October 21, 1991. As for what that change might involve, Kobets added: "I think it will be aimed at preventing wars on any scale. That is what I would provisionally call it: A doctrine for the prevention of wars." The following day, Kobets amplified on this when he said that "we believe that in the civilized world today, there are no enemies or opponents," an emergent attitude which "presupposes a reconsideration of the currently existing Soviet defensive military doctrine and the adoption of a new one which can be symbolically described as a war prevention doctrine." Interview by R. Zadunaiskii and A. Naryshkin. TASS international service, October 22, 1991.

⁴⁷Mary C. FitzGerald, "Soviet Armed Forces After the Gulf War: Demise of the Defensive Doctrine?" *Report on the USSR*, RFE/RL Research Institute, Radio Free Europe, April 19, 1991, p. 1.

for what purpose—will eventually emerge from the implosion of the former Soviet state. Unlike previous experiences with local wars involving Soviet arms recipients, the Gulf war came at a time of great turbulence in Soviet military affairs. As such, it was bound to provide ammunition for anyone with a position to advance in the emerging struggle for control over the now wide-open Russian defense agenda.

As noted earlier, Russian defense professionals have reacted to the war in uneven ways that reflect the broader pluralism that has come to dominate post-Soviet Russian politics. Some have been openly complimentary of Western technology and fighting skills and have sought to absorb the various teachings offered by Desert Storm with an open mind. Others have appeared defensive and even jealous in the face of the coalition's accomplishments and have tended instead toward a peremptory rejection of any learning value from a war that they dismiss as idiosyncratic. Clearly the Russian perspective on the Gulf experience has been far from monolithic. On the contrary, it has continued to evolve in a manner reflecting the tense debates in Moscow over a broad range of policy issues.

Moreover, since the cease-fire in March 1991, the context of Russian defense politics has been shaken by such radical change that some sensible forecasts made by Western analysts in the immediate wake of the war have been overtaken by events. Stephen Foye, for example, predicted immediately after the cease-fire that "the war's 'lessons' will be seized upon by conservatives and reformers alike in a process that could ultimately shape not only Soviet defense policy, but the role that Moscow will play on the world stage in the 21st century."⁴⁸ Today, the real question for them—and for us—is not so much what direction Russia's military modernization will take, but whether that process will go *anywhere*, at least in the near term. As a Russian journalist poignantly remarked on the first anniversary of the commencement of Desert Storm, military professionals in Moscow know only too well that "our army is not ready to organize combat on such a high technical level As long as the economy is in a state of crisis, as long as there is no thought-through and effectively implemented reform, there is practically no hope for a fundamental change for the better in the armed forces."⁴⁹

⁴⁸Stephen Foye, "The Gulf War and the Soviet Defense Debate," *Report on the USSR*, RFE/RL Research Institute, Radio Free Europe, March 15, 1991, p. 1. See also Douglas L. Clarke, "What the General Staff Might Learn from the Gulf War," *Report on the USSR*, RFE/RL Research Institute, March 15, 1991, p. 3.

⁴⁹Viktor Litovkin, "Army Professionals Cannot Rid Themselves of Anxiety," *Izvestiia*, January 21, 1992.

Although any attempt to forecast future trends in this situation would be a gamble, there is a reasonable chance that post-Soviet military developments could take on a more Western orientation as a result of the favorable role model provided by the allied performance in Desert Storm. Such a development stands to be further facilitated by the eventual disappearance of the communist administrative and bureaucratic shackles that hitherto kept the Soviet military from internalizing an operating repertoire consistent with the capabilities of Soviet military hardware. This will require, however, a more realistic force modernization policy keyed to the limitations of the ailing Russian defense industry, assuming that the fiscal resources to underwrite even such a toned-down policy will become available in time to prevent that industry from becoming completely moribund.

We should also expect an eventual emphasis on smaller numbers of weapons and on fewer—and better trained and better —men, in keeping with Moscow's acceptance of quality as the appropriate standard for force development. Whatever force employment strategy may emerge from this readjustment will most likely be aimed at seeking flexibility in an uncertain world rather than single-mindedly accommodating any particular designated "threat." Almost certainly this will mean an end to "Soviet military doctrine" as we have known it for more than two generations.

Some of the most important insights the Russians have drawn from the Gulf experience have been more political than military. These include an admitted need to disentangle from bad allies and a realization that it makes more sense to work *with* the West than against it. They also include an appreciation that conflict remains endemic to world affairs. As one report noted in this regard, one of the "most important" lessons from Desert Storm is "the conclusion that the ending of the Cold War in Europe and the normalization of Soviet-American relations have not automatically put an end to tensions in the rest of the world."⁵⁰

Operation Desert Storm gave the Soviet High Command an unsurpassed tutorial in what high-technology weapons, coupled with good leadership and training, can do against less well-endowed forces. Yet the most insightful commentators in Moscow have recognized that the Gulf war was not ultimately about weapons systems or "technology," even though certain weapons and other combat-support systems were indeed star performers. They well understand that the war was more

⁵⁰Commentary by Boris Belskii, "Vantage Point" program, Radio Moscow international service, September 27, 1991.

fundamentally about consensus building and the orderly formation of national goals, about diplomacy and leadership in the pursuit of those goals, and about collective action in the application of combined-arms military power to achieve them when diplomacy and economic sanctions failed to carry the day.⁵¹ These are deductions from the Gulf experience that are worth contemplating not just by Russians but by all.

Fortunately for the West, the end of the Cold War and the dissolution of the USSR suggest that changes in the military policy of the former Soviet state could become more benign—and even supportive—toward the United States in the months ahead. Indeed, we have reached a point where Washington and its NATO allies can start giving serious thought to the possibility of working toward a formal community of security and defense cooperation with Russia. Such an arrangement could draw its inspiration from the similar American effort after World War II to bring defeated Nazi Germany into a European Defense Community which ultimately led to the creation of West Germany as a pivotal U.S. security partner in NATO.⁵²

Of course, a counsel of caution is warranted here. In times past, when the West was properly suspicious of Soviet intentions, we tended to exaggerate and overrate Soviet capabilities and prowess.⁵³ Today, with Moscow's good intentions increasingly taken for granted in the West, we seem all too quickly inclined to give excessively short shrift to Russia's persistent capabilities, especially in the nuclear realm.⁵⁴ Furthermore, Russia is not a defeated power. It is a proud

⁵¹As civilian analyst Sergei Blagovolin has nicely pointed out in this regard, "it would be entirely wrong to reduce matters to the fact of this having been a war of new technology. Even now it is apparent that the most complex equipment is organically combined with people correspondingly trained and capable of using it with maximum effectiveness." "The War Is Over—What Next? Thoughts on Defense Policy and More," *Kommunist*, No. 6, April 1991, pp. 77–87.

⁵²For a bold statement that expands on this idea, see Fred C. Iklé, "Comrades in Arms: The Case for a Russian-American Defense Community," *The National Interest*, Winter 1991/92, pp. 22–32. See also Benjamin S. Lambeth, "Bring the Armies In From the Cold," *Los Angeles Times*, March 6, 1992.

⁵³See, for example, Benjamin S. Lambeth, "Soviet Strategic Conduct and the Prospects for Stability," in *The Future of Strategic Deterrence*, Part II, Adelphi Paper No. 161, London, International Institute for Strategic Studies, 1980, pp. 27–38. During the height of the Soviet-American arms competition, Henry Kissinger likened the two superpowers to "heavily armed blind men feeling their way around a room, each believing himself in mortal peril from the other whom he assumes to have perfect vision." *White House Years*, Boston, Little Brown, 1979, p. 552.

⁵⁴I am indebted to my RAND colleague John Arquilla for reminding me of this important consideration.

country in great domestic turmoil over which the United States has little control. The analogy between defeated Nazi Germany in 1945 and the new Russia of today is far from perfect.

Nevertheless, a sea change has taken place in Moscow's conception of friends and enemies. In this respect, Foreign Minister Andrei Kozyrev recently wrote that Russia's current leaders are "people who are free from commitments and debts to the communist past" and who "simply cannot think . . . of NATO as Russia's adversary."⁵⁵ Marshal Shaposhnikov likewise observed not long ago how "pleased" he was to know that "the United States no longer considers the [now former] Soviet Union its adversary."⁵⁶ He has also accepted, rather remarkably in light of his upbringing as a fighter pilot and air commander, that "NATO is a sort of factor of stabilization in the world and, to some extent, on the continent of Europe, so that no Saddam Hussein-type of aggressor may appear."⁵⁷ He offered a strikingly upbeat view of the United States when he conceded that his own military lagged behind its "partners" in such areas as health and precision weaponry and stressed that "we should not be second best as far as our partners are concerned."

This leaves us with the residual, but still towering, unknown of whether Russia and the uncertain Commonwealth of Independent States will actually carry out the many military improvements—

⁵⁵ Andrei Kozyrev, "Russia: A Chance for Survival." *Foreign Affairs*, Spring 1992, pp. 14-15.

⁵⁶ Interview by T. Asami (Tokyo *Yomiuri*) and M. Morozov, "Marshal Ye. Shaposhnikov: 'We Shall Check Parities on Land and at Sea,'" *Komsomolskaia pravda*, October 1, 1991. In another revelation, Shaposhnikov stated his view that NATO "is now, on the whole, a different organization" with "different tasks and plans," justifying his hope that "we will succeed, along with the North Atlantic pact, in resolving the question of collective security in Europe." He even said it was high time to go beyond ministerial-level and general-officer exchanges with the United States and other NATO countries "to include officers and soldiers in these processes. I wish very much that our soldiers and officers undertook training, let us say, in the United States or other NATO-member countries, and that their officers and soldiers visited us within a framework of mutual exchanges of experiences from military service. This would indeed please me." Interview by Irina Chaikova, Radio Moscow in Czech, September 14, 1991.

⁵⁷ Interview on Radio Rossiya domestic service, Moscow, September 18, 1991. More boldly yet, on the very eve of the dissolution of the USSR, President Yeltsin wrote to NATO asking that it consider Russia for membership "some time in the future." Yeltsin's letter was sent in conjunction with the first-ever meeting of all 16 NATO foreign ministers and those of the former Warsaw Pact countries, including the Soviet Union, Bulgaria, Czechoslovakia, Hungary, Poland, and Romania. Representatives from the former Soviet Baltic republics of Latvia, Lithuania, and Estonia, also attended. See Thomas L. Friedman, "At NATO's East-West Forum, Russia Wants In," *International Herald Tribune*, December 21-22, 1991.

Desert Storm-inspired or otherwise—that Russian defense officials have embraced as essential to propelling Russia successfully into the new millenium. We must await future developments for a confident answer to this question, in light of the reminder provided by ongoing turmoil in the former Soviet republics that in order to reach the long run, you have to survive the short run first.